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RAPPORT ANNUEL  
DU RÉSEAU CANADIEN D'ÉCHANTILLONNAGE  
DES PRÉCIPITATIONS (RCEP) POUR  
1981  
THE CANADIAN NETWORK FOR SAMPLING  
PRECIPITATION (CANSAP)  
ANNUAL REPORT

A. SIROIS

JUIN 1983

JUNE 1983

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## 1. INTRODUCTION

Since CANSAP was initiated in 1977, only data reports have been published. There were however two exceptions. The first was an assessment of the network after two years of operation by Berry (1979). The second one was an analysis and an assessment of the CANSAP data for the period 1977 to 1980 by Barrie and Sirois (1982). In this later report, tables of the precipitation-amount-weighted means and of the annual depositions for the major ions were given for each year. Maps of their spatial distributions were also included for 1978, 1979 and 1980 for the most important ions.

Lately, modifications were made to the data report. The presentation of the data tables was changed. Plots showing the monthly variations of the pH,  $\text{Ca}^{++}$ ,  $\text{NH}_4^+$ ,  $\text{Na}^+$ ,  $\text{SO}_4^-$  and  $\text{NO}_3^-$  were added. The unit used for the concentrations is mg/l. A reformulation of the data for the years before 1981 using the new format was also done (AES, 1982 a,b). The report for the 1981 data has been recently published (AES, 1982 c).

To complete those improvements in the publishing of the data, this annual report was initiated. This report gives tables and plots of the data as they were published in the data reports. However, it adds some derived results to the basic data. The concentrations are given in  $\mu\text{g/l}$ . It contains also more plots of the monthly variations of major ions and precipitation amounts. It gives also a new tool, a quality control axis, to assess the quality of the data. Tables and maps of the spatial distributions of the annual precipitation-amount-weighted means and annual deposition are also included.

No interpretation of the data is done in this report. In the following pages, only information on how the different results presented have been obtained and how to interpret them is given. Reports of the analysis and assessment of these results will be published later.

## 2. NETWORK OPERATIONS

### 2.1 CANSAP Network in 1981

There were 54 CANSAP stations operating in 1981. Of those 54 stations, 9 were at a major airport, 18 at a small airport, 7 in a suburban area and 20 in a rural or remote location. Table 1 gives a list of those stations and some information about them. Figure 1 shows their spatial distribution across Canada.

### 2.2 The Collector

The Sangamo C collector is used by the CANSAP network. This collector consists of a lid-cover which oscillates between two buckets, one wet deposition container, the other dry deposition container. This latter is not used in the CANSAP network. The lid is operated by a motor which is activated by an external sensor capable of detecting small amounts of liquid or solid precipitation. The buckets are made of black plastic and have a collection area of  $307 \pm 1 \text{ cm}^2$ . The collector lid forms a metal to plastic seal which is not completely tight. A complete description of the Sangamo C collector is to be found in the CANSAP Manual (AES, 1980).

### 2.3 Sampling Protocol

The CANSAP network collects monthly precipitation samples. The collector bucket is emptied every few days into a large bottle, stored at room temperature indoors. At the end of the month, the bottle containing the precipitation sample for the month is mailed by regular post to AES headquarters. It is kept there near zero celsius until it is shipped to the laboratory for analysis. The samples are analysed by the Inland Waters Directorate Water Quality Laboratory at the Canada Centre for Inland Waters in Burlington (Ontario). Table 2 gives the variables reported by the laboratory as well as the analysis methods used. The reporting units and the detection limits are also indicated.



TABLE 1: CANSAP network stations, 1981

| Station          | Prov. | Lat. |      | Long. |      | Elevation<br>meters | Class         |
|------------------|-------|------|------|-------|------|---------------------|---------------|
|                  |       | Deg. | Min. | Deg.  | Min. |                     |               |
| Fort Reliance    | NW    | 62   | 43   | 109   | 10   | 165                 | rural         |
| Hay River        | NW    | 60   | 50   | 115   | 47   | 167                 | rural         |
| Inuvik           | NW    | 68   | 18   | 133   | 29   | 69                  | small airport |
| Mould Bay        | NW    | 76   | 14   | 119   | 19   | 16                  | remote        |
| Whitehorse       | YT    | 60   | 43   | 135   | 4    | 704                 | small airport |
| Fort Nelson      | BC    | 58   | 50   | 122   | 36   | 383                 | small airport |
| Fort St. John    | BC    | 56   | 14   | 120   | 44   | 696                 | major airport |
| Kelowna          | BC    | 49   | 58   | 119   | 23   | 431                 | small airport |
| Port Hardy       | BC    | 50   | 41   | 127   | 22   | 23                  | small airport |
| Prince George    | BC    | 53   | 53   | 122   | 41   | 692                 | major airport |
| Revelstoke       | BC    | 50   | 58   | 118   | 11   | 444                 | rural         |
| Terrace          | BC    | 54   | 28   | 128   | 35   | 218                 | small airport |
| Vancouver        | BC    | 49   | 11   | 123   | 11   | 3                   | major airport |
| Coronation       | AL    | 52   | 4    | 111   | 27   | 792                 | small airport |
| Edson            | AL    | 53   | 35   | 116   | 27   | 926                 | small airport |
| Fort McMurray    | AL    | 56   | 39   | 111   | 13   | 370                 | major airport |
| Lethbridge       | AL    | 49   | 38   | 112   | 48   | 930                 | small airport |
| Rocky Mtn. House | AL    | 52   | 26   | 114   | 55   | 989                 | sub-urban     |
| Cree Lake        | SA    | 57   | 21   | 107   | 8    | 500                 | remote        |
| Kindersley       | SA    | 51   | 28   | 109   | 10   | 684                 | sub-urban     |
| Wynyard          | SA    | 51   | 46   | 104   | 12   | 562                 | sub-urban     |
| Bissett          | MA    | 51   | 2    | 95    | 40   | 259                 | rural         |
| Churchill        | MA    | 58   | 45   | 94    | 4    | 31                  | small airport |
| Dauphin          | MA    | 51   | 6    | 100   | 3    | 306                 | small airport |
| The Pas          | MA    | 53   | 58   | 101   | 6    | 274                 | small airport |
| Atikokan         | ON    | 48   | 45   | 91    | 37   | 394                 | sub-urban     |
| Dorset           | ON    | 45   | 13   | 78    | 56   | 324                 | rural         |

TABLE 1: CANSAP network stations, 1981 (continued)

| Station      | Prov. | Lat. |      | Long. |      | Elevation<br>meters | Class         |
|--------------|-------|------|------|-------|------|---------------------|---------------|
|              |       | Deg. | Min. | Deg.  | Min. |                     |               |
| ELA          | ON    | 49   | 40   | 93    | 43   | 370                 | remote        |
| Harrow       | ON    | 42   | 2    | 82    | 54   | 192                 | rural         |
| Kapuskasing  | ON    | 49   | 24   | 82    | 26   | 228                 | rural         |
| Kingston     | ON    | 44   | 13   | 76    | 36   | 93                  | small airport |
| Moosonee     | ON    | 51   | 16   | 80    | 39   | 11                  | rural         |
| Mount Forest | ON    | 43   | 59   | 80    | 45   | 416                 | sub-urban     |
| Peterborough | ON    | 44   | 14   | 78    | 22   | 192                 | small airport |
| Pickle Lake  | ON    | 51   | 28   | 90    | 12   | 370                 | sub-urban     |
| Simcoe       | ON    | 42   | 51   | 80    | 16   | 242                 | rural         |
| Trout Lake   | ON    | 53   | 50   | 89    | 52   | 221                 | rural         |
| Chibougamau  | QU    | 49   | 49   | 74    | 25   | 403                 | small airport |
| Fort Chimo   | QU    | 58   | 6    | 68    | 25   | 37                  | remote        |
| Maniwaki     | QU    | 46   | 23   | 75    | 58   | 171                 | sub-urban     |
| Nitchequon   | QU    | 53   | 12   | 70    | 54   | 537                 | remote        |
| Quebec City  | QU    | 46   | 48   | 71    | 24   | 74                  | major airport |
| St. Hubert   | QU    | 45   | 31   | 73    | 25   | 28                  | major airport |
| Sept Isles   | QU    | 50   | 13   | 66    | 15   | 56                  | small airport |
| Acadia Fes   | NB    | 46   | 0    | 66    | 22   | 62                  | rural         |
| Charlo       | NB    | 48   | 0    | 66    | 20   | 39                  | small airport |
| Saint John   | NB    | 45   | 19   | 65    | 53   | 110                 | major airport |
| Kejimikujik  | NS    | 44   | 26   | 65    | 12   | 128                 | rural         |
| Sable Island | NS    | 43   | 56   | 60    | 1    | 5                   | remote        |
| Shelburne    | NS    | 43   | 43   | 65    | 15   | 31                  | rural         |
| Truro        | NS    | 45   | 22   | 63    | 16   | 41                  | rural         |
| Gander       | NF    | 48   | 57   | 54    | 34   | 152                 | major airport |
| Goose        | NF    | 53   | 19   | 60    | 22   | 37                  | major airport |
| Stephenville | NF    | 48   | 32   | 58    | 33   | 27                  | small airport |



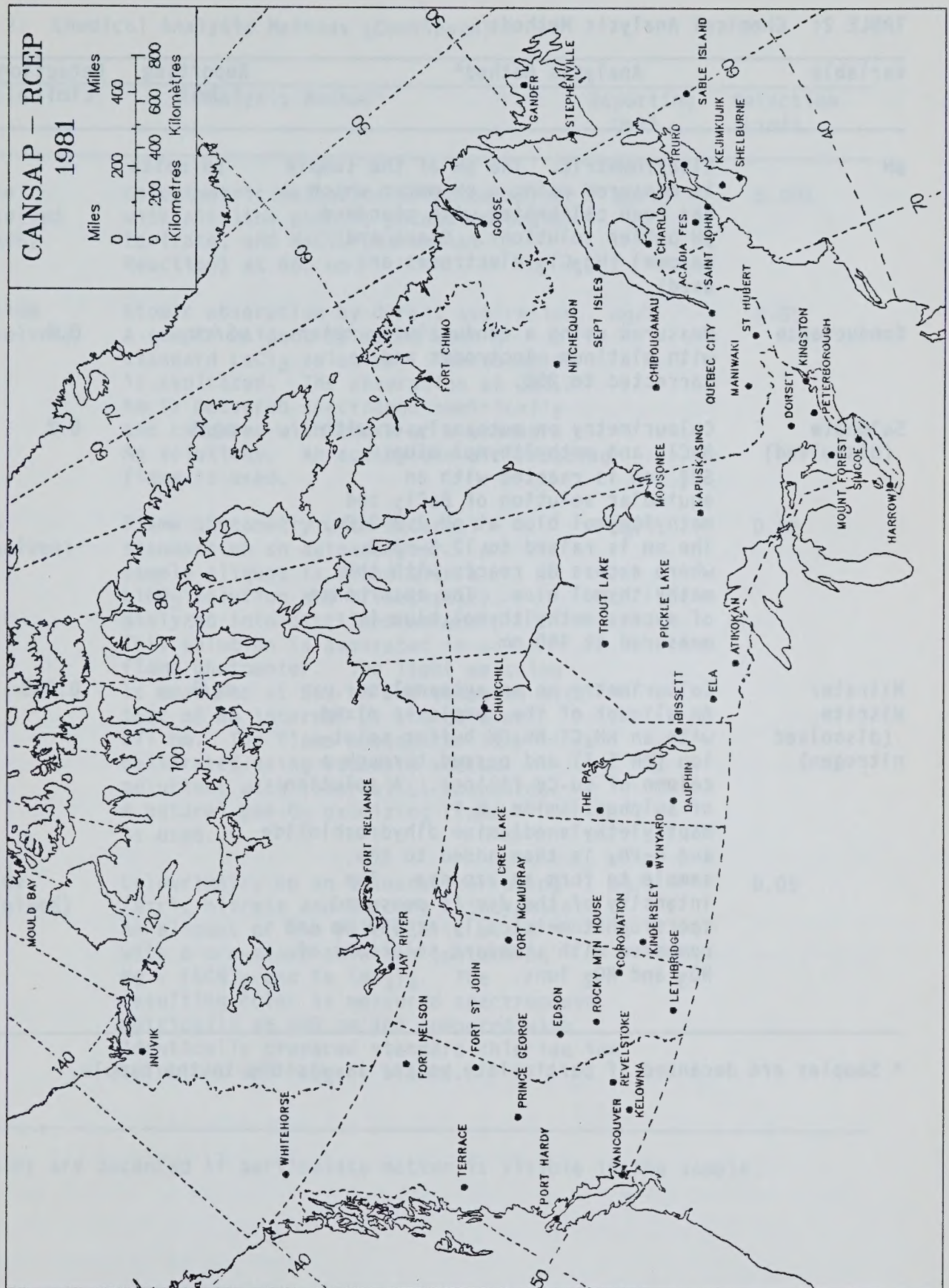


Figure 1 . CANSAP Network in 1981



TABLE 2: Chemical Analysis Methods

| Variable                                       | Analysis Method*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Reporting Unit          | Detection Limit |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------|
| pH                                             | Electrometric. The pH of the sample is measured using a pH meter which has been calibrated with standard pH buffer solutions. Glass and calomel ( $\text{Hg}_2\text{Cl}_2$ electrodes are used).                                                                                                                                                                                                                                                                                                            | pH units                | --              |
| Conductance                                    | Measured using a conductivity meter with platinum electrodes and corrected to 25C.                                                                                                                                                                                                                                                                                                                                                                                                                          | $\mu\text{S}/\text{cm}$ | 0.2             |
| Sulphate<br>(dissolved)                        | Colourimetry on autoanalyser with $\text{BaCl}_2$ and methylthymol blue. $\text{SO}_4^{2-}$ ion is reacted with an equimolar solution of $\text{BaCl}_2$ and methylthymol blue at pH 2.3-3.0. The pH is raised to 12.5-13.0 where excess Ba reacts with the methylthymol blue. The absorbance of excess methylthymol blue is measured at 460 nm.                                                                                                                                                            | mg/l                    | 0.2             |
| Nitrate/<br>Nitrite<br>(dissolved<br>nitrogen) | Colourimetry on an autoanalyser. An aliquot of the sample is mixed with an $\text{NH}_4\text{Cl}$ - $\text{NH}_4\text{OH}$ buffer solution (pH 5.5) and passed through a column of Cu-Cd filings. A solution of sulphanilamide, N-1 Naphthylethylenediamine dihydrochloride and $\text{H}_3\text{PO}_4$ is then added to the sample to form an azo dye. The intensity of the dye is measured spectrophotometrically at 550 nm and compared with standard solutions of $\text{NO}_3$ and $\text{NO}_2$ ions. | mg/l                    | 0.005           |

\* Samples are decanted if particulate matter is visible in the sample.

TABLE 2: Chemical Analysis Methods (Continued)

| Variable                        | Analysis Method*                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Reporting Unit | Detection Limit |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------|
| Ammonia<br>(dissolved nitrogen) | Colorimetric method on an autoanalyser with alkaline phenol, potassium sodium tartrate, and NaClO (Berthelot Reaction) at 660 nm                                                                                                                                                                                                                                                                                                                                                   | mg/l           | 0.001           |
| Magnesium<br>(dissolved)        | Atomic absorption by direct aspiration. A sample aliquot is mixed with a standard $\text{LaCl}_3$ solution. The solution is aspirated. The absorption at 285.2 nm is measured spectrophotometrically and compared with those of a standard Mg solutions. An acetylene-air reducing flame is used.                                                                                                                                                                                  | mg/l           | 0.01            |
| Sodium<br>(dissolved)           | Flame photometry with internal standard on an autoanalyser. A sample aliquot is mixed with a $\text{LiNO}_3$ solution and if necessary, dialyzed into distilled water. This solution is aspirated in a flame photometer. The light emission is measured at 589 nm and compared with that of an internal Li standard at 671 nm. The flame photometer is calibrated using standard sodium solutions with internal Li standards. A natural gas- $\text{O}_2$ oxidizing flame is used. | mg/l           | 0.02            |
| Chloride<br>(dissolved)         | Colourimetry on an autoanalyzer using ferric nitrate and mercury thiocyanate. An aliquot of the filtrate is mixed with a pre-mixed solution containing $\text{Hg} - (\text{SCN})_2$ and $\text{Fe} (\text{NO}_3)_3$ . The resulting color is measured spectrophotometrically at 489 nm and compared with identically prepared standard chloride ion solutions and reagent blanks.                                                                                                  | mg/l           | 0.05            |

\* Samples are decanted if particulate matter is visible in the sample.



TABLE 2: Chemical Analysis Methods (continued)

| Variable              | Analysis Method*                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Reporting Unit           | Detection Limit |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------|
| Potassium (dissolved) | Flame photometry by internal standard on an autoanalyzer. A sample aliquot is then mixed with $\text{LiNO}_3$ solution and if necessary, dialyzed into distilled water. This solution is aspirated into a flame photometer. The light emission is measured at 768 nm and compared with that of the internal Li standard at 671 nm. The flame photometer is calibrated using standard potassium solutions with Li internal standards. A natural gas - $\text{O}_2$ oxidizing flame is used. | mg/l                     | 0.02            |
| Calcium (dissolved)   | Atomic absorption. $\text{LaCl}_3$ is added to a filtrate aliquot which is then aspirated. The absorbance is measured spectrophotometrically at 422.7 nm and compared with those of standard calcium solutions and a reagent blank.                                                                                                                                                                                                                                                        | mg/l                     | 0.05            |
| Alkalinity            | The sample is titrated to a pH of 4.0 and air is then bubbled through to remove $\text{CO}_2$ formed from $\text{CO}_3$ and $\text{HCO}_3$ on acidification. Alkaline titration is carried out to pH 5.6, the expected pH of distilled water in equilibrium with atmospheric $\text{CO}_2$ . A negative result is a measure of alkalinity.                                                                                                                                                 | $\text{H}^+\mu\text{eq}$ | --              |

\* Samples are decanted if particulate matter is visible in the sample.

### 3. MONTHLY DATA

The monthly data are presented using two formats: tables and plots. All the variables analysed by the laboratory are shown. The units used for the ion concentrations are  $\mu\text{g/l}$ . Appendix I gives tables of conversion factors to other units. To those variables, others have been added. Table 3 indicates the different variables presented in this report with the symbols used.

#### 3.1 Tables

Tables of the monthly values of the different variables for each station are given in Appendix II. A blank space indicates that the data was not available. The symbol "DEL" indicates that the value has been deleted, and "BDL" that it was below the detection limit. Some data that have been published as below detection limit in the data report (AES, 1982c) were deleted for this report.

The sulphate concentrations corrected for sea-salt have been calculated using the sodium concentrations and a mole ratio of sulphate to sodium in bulk seawater of 0.059. The correction percentage is defined as

$$5.9 \times \frac{[ \text{Na}^+ ]}{[ \text{SO}_4^{=}]}$$

where the two concentrations are in  $\mu\text{mol/l}$ .

In the calculation of the ion balance (cations/anions),  $\text{H}^+$ ,  $\text{NH}_4^+$ ,  $\text{Ca}^{++}$ ,  $\text{Na}^+$ ,  $\text{Mg}^{++}$  and  $\text{K}^+$  were used for the sum of the cations. The anion sum includes  $\text{SO}_4^{=}$ ,  $\text{NO}_3^-$  and  $\text{Cl}^-$ . Bi-carbonate  $\text{HCO}_3^-$  was also added for the samples with a pH higher than 5.6. It was estimated using alkalinity given as milligram per litre of calcium carbonate  $\text{CaCO}_3$ . A molecular weight of 50 was used.

In the calculation of any of the two ion sums if one or more ions had a value under the detection limit, the sum of all the other ions was calculated



TABLE 3: Variables presented in the report

| Variable                         | Symbol                       | Comment                                                                                                                                                                                                  |
|----------------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Days                             | DAYS                         | The number of days over which the sample was collected.                                                                                                                                                  |
| Catch of Collector               | PREC C                       | The amount of precipitation collected by the collector over the sampling period, expressed in centimeters of water.                                                                                      |
| Catch of Standard                | PREC S                       | The amount of precipitation collected by the standard gauge at the collection site over the sampling period, expressed in centimeters of water.                                                          |
| Total annual Precipitation       | PREC T                       | Total annual precipitation at the collection site calculated using the climatological data, expressed in centimeters of water (if the climatological value was missing, the catch of standard was used). |
| pH                               | PH L                         | The negative logarithm of the free ion concentration expressed in pH units and measured at the laboratory.                                                                                               |
| Conductance                      | COND                         | The specific conductance expressed in microsiemens per centimeter.                                                                                                                                       |
| Sulphate ( $\text{SO}_4^{2-}$ )  | $\text{SO}_4^{2-}$           | ion concentration in $\mu\text{eq/l}$ .                                                                                                                                                                  |
| Nitrate ( $\text{NO}_3^-$ )      | $\text{NO}_3^-$              | ion concentration in $\mu\text{eq/l}$ .                                                                                                                                                                  |
| Chloride ( $\text{Cl}^-$ )       | $\text{Cl}^-$                | ion concentration in $\mu\text{eq/l}$ .                                                                                                                                                                  |
| Ammonium ( $\text{NH}_4^+$ )     | $\text{NH}_4^+$              | ion concentration in $\mu\text{eq/l}$ .                                                                                                                                                                  |
| Sodium ( $\text{Na}^+$ )         | $\text{Na}^+$                | ion concentration in $\mu\text{eq/l}$ .                                                                                                                                                                  |
| Potassium ( $\text{K}^+$ )       | $\text{K}^+$                 | ion concentration in $\mu\text{eq/l}$ .                                                                                                                                                                  |
| Magnesium ( $\text{Mg}^{++}$ )   | $\text{Mg}^{++}$             | ion concentration in $\mu\text{eq/l}$ .                                                                                                                                                                  |
| Calcium ( $\text{Ca}^{++}$ )     | $\text{Ca}^{++}$             | ion concentration in $\mu\text{eq/l}$ .                                                                                                                                                                  |
| Sulphate corrected for sea-salt. | $\text{SO}_4^{2-} \text{ C}$ | ion concentration in $\mu\text{eq/l}$ .                                                                                                                                                                  |

TABLE 3: Variables presented in the report (continued)

| Variable              | Symbol   | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Correction percentage | COR %    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Ionic balance         | IONB +/- | Ratio of the sum of the cations over the sum of the anions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Alkalinity            | ALK      | in milligram per liter of $\text{CaCO}_3$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Comment               | COMMENT  | Each digit refers to a comment arising from the quality control procedures and is explained below:<br>0 - No comment required<br>1 - Soil was visible in the sample<br>2 - Organic matter (algae, leaves, etc) was visible in the sample<br>3 - One or more insects were noted in the sample<br>4 - There appeared to be significant evaporation effects on the sample<br>5 - One or more data have been deleted<br>6 - Sea salts were present in the sample<br>7 - The sampling period was less than or equal to 21 days of the month<br>8 - Manual wet - only collector<br>9 - Insufficient sample was available for complete analysis |



and compared to the sum of the detection limits. If the latter was greater than 10% of the former, no value for the ion balance is shown in the table. If it was less than 10%, half of the detection limits were used in the final calculation.

### 3.2 Plots

The monthly data for the major ion concentrations, pH, collector precipitation amount, standard precipitation amount given in Appendix II are also shown in graphic form in Appendix III. There are twelve plots for each station.

Except for pH and the ion balance, the scale of the vertical axis (left one) was fixed to minimize the maximum value. For each station, the same range for this axis is used for both the standard precipitation and the collector amounts. Therefore, they may be easily compared. The plots for the pH and the ion balance have the same vertical axis for all the stations.

In the pH plots, the dashed line indicates the value 5.6 that is usually used as a limit between acidic and non-acidic precipitation. The maximum and minimum values for this axis show also the range within which the monthly pH values (in fact the minimum pH is 3.8 and the maximum pH is 7.9 in 1981).

For the ion balance plots, the value 1, which indicates that the cation and anion sums balance, is shown by a continuous line. The dashed lines above and below this line indicate the values 0.8 and 1.2 respectively. Those values correspond to variations of 20% about a perfect ion balance of 1. The maximum value that may be shown is 2. Therefore, samples that have a value of the ion balance higher than 2 are shown by a continuous line stretching between 1 and 2.

The right axis labelled Z is the quality control axis. The meaning of this parameter is explained in the next section.

### 3.3 Quality Control Axis

The quality control axis was designed as an aid in assessing the data. It gives the magnitude of a data point relative to the mean for the years 1980/81 in units of a standard deviation. A log-normal distribution for the variables is used.  $Z_i$  for a month,  $i$ , and a variable  $[x]$  is defined as:

$$Z_i = \frac{\ln [x]_i - \ln \bar{[x]}}{\ln (STD)}$$

where  $\bar{[x]} = e^{\frac{1}{N} \sum_j [x]_j}$

and  $STD = e^{\frac{1}{N-1} \sqrt{\sum_j ([x]_j - \bar{[x]})^2}}$

The sums were done using the 1980 and 1981 data. The following data of 1980 were deleted: January and February for Revelstoke, February for Terrace, Vancouver and The Pas. In the plots (Appendix III), the value 0.0 for  $Z$  points at the value of the mean on the left axis. The maximum value indicated on the  $Z$  axis corresponds to the left axis maximum. The minimum value was fixed so that the lowest non-missing data has a  $Z$  value higher than this limit. The means ( $\bar{[x]}$ ) and the standard deviations (STD) for all the variables and all the stations are given in Appendix IV.

If there was one or more variable(s) below the detection limit(s) in the calculation of those two parameters, a first calculation of the mean was done using half the detection limit(s). If the mean so obtained was less than twice the maximum detection limit, the mean was not reported. If the opposite was true, the mean was calculated again using the detection limit(s). The second mean was then compared to the first. If they differed by more than 30%, the mean was not reported. The values for the means and standard deviations given in Appendix IV are the ones obtained using half the detection limit(s). The values rejected for any one of the two above mentioned reasons are indicated as "DEL" in the tables and the plots have no  $Z$  axis (Appendix III).



#### 4. PRECIPITATION-AMOUNT-WEIGHTED MEANS

To calculate the annual precipitation-amount-weighted means, the precipitation amounts obtained using the standard gauge for rain and the nipher gauge for snow were used. The following formula was used to calculate the precipitation-amount-weighted means:

$$\bar{C} = \frac{\sum_i C_i P_i}{\sum_i P_i}$$

where  $C_i$  is the monthly concentration and  $P_i$  the monthly standard precipitation amount. The mean was deleted if there were less than 8 months of data. The test described in section 3.3 was also used in the calculations of the means. Months with a sampling period of less than 20 days were not used in the calculations. No correction for evaporation was made.

The weighted mean pH was calculated from monthly pH values of converting to hydrogen ion concentrations, calculating the weighted mean and then taking the negative anti-log to convert back to pH.

##### 4.1 Tables

Appendix V presents tables of the annual precipitation-amount-weighted means for pH,  $H^+$ ,  $NH_4^+$ ,  $Ca^{++}$ ,  $Mg^{++}$ ,  $Na^+$ ,  $K^+$ ,  $SO_4^{--}$ ,  $NO_3^-$  and  $Cl^-$ . The weighted means for  $SO_4^{--}$  corrected for sea-salt and the correction percentage are also given. The symbol "DEL" indicates that the value was rejected for one of the reasons indicated earlier. The number of months used for the calculation of the mean is given in brackets.

##### 4.2 Spatial distributions

Maps of the spatial distribution of the annual precipitation-amount-weighted means for the major ions were drawn using those values. They have been done for the following variables: pH,  $H^+$ ,  $NH_4^+$ ,  $Ca^{++}$ ,  $Mg^{++}$ ,

$\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{NO}_3^-$ ,  $\text{Cl}^-$  and  $\text{SO}_4^{=}$  corrected for sea salt. They are given in Appendix VI. The isopleths were hand drawn, digitized and plotted using the computer and a spline function. The background maps were done using a Lambert bi-parallel conformal-conical projection true at 49° and 77° north. The isopleths are dashed where their positions are completely uncertain.

Some stations were deleted when drawing the isopleths. They are listed in Table 4. The same stations have also been deleted for the annual deposition maps (Section 5.2). Fort McMurray has been deleted for all the maps as the data were not representative of the area.

## 5. ANNUAL DEPOSITION

Annual deposition was calculated by multiplying precipitation-amount-weighted mean concentrations by annual precipitation amount. This latter value was obtained in summing monthly observations obtained by the AES climatological network. If a month was missing the standard precipitation amount was used. If the precipitation amount was missing for one or more months, no deposition value was calculated.

### 5.1 Tables

Tables of the annual deposition of  $\text{H}^+$ ,  $\text{NH}_4^+$ ,  $\text{Ca}^{++}$ ,  $\text{Mg}^{++}$ ,  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{SO}_4^{=}$ ,  $\text{NO}_3^-$ ,  $\text{Cl}^-$  and  $\text{SO}_4^{=}$  corrected for sea-salt are given in Appendix VII. The total annual precipitation amount (PREC T) is also given in centimeters. The deposition is given in millimole equivalent per square meter per year ( $\text{MEQ}/\text{M}^2/\text{A}$ ). Conversion factors to other units are given in Appendix I.

A symbol "DEL" for the annual precipitation indicates that one or more monthly precipitation amounts were missing. A symbol "DEL" for a variable at a station where the total annual precipitation is given indicates that the annual precipitation-amount-weighted mean for the variable has been deleted (see Section 4).



TABLE 4: Stations deleted on the annual precipitation-amount-weighted mean maps and annual deposition maps. Those stations are indicated by a X.

| Station       | pH | H <sup>+</sup> | Ca <sup>++</sup> | NH <sub>4</sub> <sup>+</sup> | Na <sup>+</sup> | Mg <sup>++</sup> | K <sup>+</sup> | SO <sub>4</sub> <sup>-</sup> | NO <sub>3</sub> <sup>-</sup> | Cl <sup>-</sup> |
|---------------|----|----------------|------------------|------------------------------|-----------------|------------------|----------------|------------------------------|------------------------------|-----------------|
| Hay River     |    |                | X                | X                            |                 |                  |                |                              |                              |                 |
| Inuvik        |    |                | X                |                              |                 | X                |                |                              |                              |                 |
| Whitehorse    |    |                | X                |                              |                 | X                |                |                              |                              |                 |
| Fort Nelson   |    |                |                  | X                            |                 |                  |                |                              |                              |                 |
| Fort St. John |    |                | X                |                              |                 |                  |                |                              |                              |                 |
| Fort McMurray | X  | X              | X                | X                            | X               | X                | X              | X                            | X                            | X               |
| Kindersley    |    |                |                  |                              | X               |                  |                |                              |                              |                 |
| Stephenville  |    |                |                  |                              |                 | X                |                |                              |                              | X               |

## 5.2 Spatial Distributions

In order to obtain maps of annual wet deposition, use was made of an important characteristic of precipitation scavenging in the atmosphere, namely, that on an annual basis precipitation concentrations fields vary less, spatially, than precipitation amount fields (Granat, 1978). Therefore a denser network is required for the determination of precipitation amount than for the chemical composition of precipitation.

Thus, in constructing the spatial distribution of deposition of a particular ion, annual precipitation amount measurements from not only CANSAP stations but also from Class 1 Canadian Climatological observing stations were used. By superimposing an ion-concentration-field on a map with precipitation amounts, deposition at each station recording precipitation amount was calculated. The isopleths were then hand drawn. The final map was produced in the same way as the spatial distribution of precipitation-amount-weighted mean concentration maps. Maps of annual depositions were drawn for all the ions given in the tables in Appendix VII (except  $\text{SO}_4^{=}$ ). Those maps are given in Appendix VIII. In Table 4 the names of the stations which were deleted when drawing the maps are listed.



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RAPPORT ANNUEL DU RÉSEAU CANADIEN  
D'ÉCHANTILLONNAGE DES PRÉCIPITATIONS (RCEP) POUR  
1981

A. SIROIS

SERVICE DE L'ENVIRONNEMENT ATMOSPHERIQUE

JUIN 1983

(in English page 2)





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## 1. INTRODUCTION

Depuis l'inauguration du réseau RCEP en 1977, seules les observations ont été publiées. Il y a eu cependant deux exceptions. La première fut la publication d'une évaluation de réseau après deux ans d'opération par R. Berry (1979). La seconde fut un rapport contenant une analyse et une évaluation des données du réseau RCEP pour la période 1977 à 1980 par L.A. Barrie et A. Sirois (1982). Des tableaux des concentrations annuelles moyennes, pondérées par la hauteur des précipitations, et des dépôts annuels pour les principales ions y sont présentés. Leur répartition spatiale est aussi illustrée par une série de cartes pour les années 1978, 1979 et 1980.

Récemment, on a apporté des modifications au système de publication. La présentation des tableaux pour les données a été modifiée. Des diagrammes illustrant les variations mensuelles du pH,  $\text{Ca}^{++}$ ,  $\text{NH}_4^+$ ,  $\text{Na}^+$ ,  $\text{SO}_4^{=}$  et  $\text{NO}_3^-$  ont été ajoutés. Les concentrations ioniques y sont données en mg/l. Une réédition des données antérieures à 1981 a été faite en utilisant ce nouveau format (SEA, 1982 a,b). Les données de 1981 ont aussi été publiées (SEA, 1982 c).

Le présent rapport annuel a été créé pour compléter ces améliorations au système de publication. Il fournit des tableaux et des graphiques des données comme le précédent rapport. Cependant, on y a ajouté quelques résultats dérivés à partir des données de base. Les concentrations ioniques y sont données en  $\mu\text{eq/l}$ . De plus, il contient un plus grand nombre de graphiques des variations mensuelles des concentrations ioniques et aussi celles de la hauteur des précipitations. Un nouvel outil d'analyse de la qualité des données (i.e., un axe pour le contrôle de la qualité) y a été ajouté. On y trouve finalement des tableaux, des cartes de la distribution spatiale des concentrations moyennes annuelles, pondérées par la hauteur des précipitations, et des cartes de la répartition spatiale des dépôts annuels.

Nous ne faisons aucune interprétation des données dans ce rapport. Les pages qui suivent contiennent seulement des informations indiquant comment les résultats présentés ont été obtenus et comment les interpréter. Des rapports sur l'analyse et l'évaluation de ces résultats seront publiés ultérieurement.



## 2. EXPLOITATION DU RÉSEAU

### 2.1 Le réseau RCEP en 1981

Le réseau RCEP comprenait 54 stations en 1981: 9 étaient situées dans des aéroports importants, 18 dans de petits aéroports, 7 à proximité d'un centre urbain et finalement 20 étaient dans un environnement rural ou éloigné. Le Tableau 1 présente quelques informations sur ces stations. La Figure 1 illustre leur répartition spatiale à travers le Canada.

### 2.2 Le collecteur

Le réseau RCEP utilise le collecteur Sangamo C. Il consiste essentiellement en un couvercle qui oscille entre deux récipients: l'un pour les dépôts humides, l'autre pour les dépôts secs. Ce dernier n'est pas utilisé dans le réseau RCEP. Le couvercle est déplacé à l'aide d'un moteur qui est actionné par un senseur capable de détecter de petites quantités de précipitations solides ou liquides. Les récipients sont en plastique noir et ont une surface de collection de  $307 \pm 1 \text{ cm}^2$ . Le couvercle de métal repose directement sur le récipient de plastique formant un joint non complètement hermétique. Une description plus détaillée du collecteur Sangamo C est donnée dans le Manuel CANSAP (SEA, 1980).

### 2.3 Le protocole d'échantillonnage

Des échantillons mensuelles sont accumulés par le réseau RCEP. Le récipient est vidé fréquemment (tous les deux ou trois jours) dans une grande bouteille, qui est conservée à l'intérieur à la température de la pièce. À la fin de chaque mois, la bouteille contenant l'échantillon mensuel est envoyée par la poste régulière au quartier général du SEA. L'échantillon est alors conservé à une température d'environ zéro degré celsius avant d'être transféré au laboratoire pour analyse. Les échantillons sont analysés au laboratoire de la Direction de la qualité de l'eau du Centre canadien des eaux intérieures à Burlington (Ontario). Le Tableau 2 présente la liste des paramètres rapportés par le laboratoire ainsi que les méthodes d'analyse utilisées. Les unités employées et les limites de détection sont aussi indiquées.

TABLEAU 1: Stations du réseau RCEP en 1981

| Station          | Prov. | Lat. |      | Long. |      | Elévation<br>mètres | Classe         |
|------------------|-------|------|------|-------|------|---------------------|----------------|
|                  |       | Deg. | Min. | Deg.  | Min. |                     |                |
| Fort Reliance    | TNW   | 62   | 43   | 109   | 10   | 165                 | rural          |
| Hay River        | TNW   | 60   | 50   | 115   | 47   | 167                 | rural          |
| Inuvik           | TNW   | 68   | 18   | 133   | 29   | 69                  | petit aéroport |
| Mould Bay        | TNW   | 76   | 14   | 119   | 19   | 16                  | éloigné        |
| Whitehorse       | YT    | 60   | 43   | 135   | 4    | 704                 | petit aéroport |
| Fort Nelson      | CB    | 58   | 50   | 122   | 36   | 383                 | petit aéroport |
| Fort St. John    | CB    | 56   | 14   | 120   | 44   | 696                 | grand aéroport |
| Kelowna          | CB    | 49   | 58   | 119   | 23   | 431                 | petit aéroport |
| Port Hardy       | CB    | 50   | 41   | 127   | 22   | 23                  | petit aéroport |
| Prince George    | CB    | 53   | 53   | 122   | 41   | 692                 | grand aéroport |
| Revelstoke       | CB    | 50   | 58   | 118   | 11   | 444                 | rural          |
| Terrace          | CB    | 54   | 28   | 128   | 35   | 218                 | petit aéroport |
| Vancouver        | CB    | 49   | 11   | 123   | 11   | 3                   | grand aéroport |
| Coronation       | AL    | 52   | 4    | 111   | 27   | 792                 | petit aéroport |
| Edson            | AL    | 53   | 35   | 116   | 27   | 926                 | petit aéroport |
| Fort McMurray    | AL    | 56   | 39   | 111   | 13   | 370                 | grand aéroport |
| Lethbridge       | AL    | 49   | 38   | 112   | 48   | 930                 | petit aéroport |
| Rocky Mtn. House | AL    | 52   | 26   | 114   | 55   | 989                 | suburbain      |
| Cree Lake        | SA    | 57   | 21   | 107   | 8    | 500                 | éloigné        |
| Kindersley       | SA    | 51   | 28   | 109   | 10   | 684                 | suburbain      |
| Wynyard          | SA    | 51   | 46   | 104   | 12   | 562                 | suburbain      |
| Bissett          | MA    | 51   | 2    | 95    | 40   | 259                 | rural          |
| Churchill        | MA    | 58   | 45   | 94    | 4    | 31                  | petit aéroport |
| Dauphin          | MA    | 51   | 6    | 100   | 3    | 306                 | petit aéroport |
| The Pas          | MA    | 53   | 58   | 101   | 6    | 274                 | petit aéroport |
| Atikokan         | ON    | 48   | 45   | 91    | 37   | 394                 | suburbain      |
| Dorset           | ON    | 45   | 13   | 78    | 56   | 324                 | rural          |



TABLEAU 1: Stations du réseau RCEP en 1981 (suite)

| Station      | Prov. | Lat. |      | Long. |      | Elévation<br>mètres | Classe         |
|--------------|-------|------|------|-------|------|---------------------|----------------|
|              |       | Deg. | Min. | Deg.  | Min. |                     |                |
| ELA          | ON    | 49   | 40   | 93    | 43   | 370                 | éloigné        |
| Harrow       | ON    | 42   | 2    | 82    | 54   | 192                 | rural          |
| Kapuskasing  | ON    | 49   | 24   | 82    | 26   | 228                 | rural          |
| Kingston     | ON    | 44   | 13   | 76    | 36   | 93                  | petit aéroport |
| Moosonee     | ON    | 51   | 16   | 80    | 39   | 11                  | rural          |
| Mount Forest | ON    | 43   | 59   | 80    | 45   | 416                 | suburbain      |
| Peterborough | ON    | 44   | 14   | 78    | 22   | 192                 | petit aéroport |
| Pickle Lake  | ON    | 51   | 28   | 90    | 12   | 370                 | suburbain      |
| Simcoe       | ON    | 42   | 51   | 80    | 16   | 242                 | rural          |
| Trout Lake   | ON    | 53   | 50   | 89    | 52   | 221                 | rural          |
| Chibougamau  | QU    | 49   | 49   | 74    | 25   | 403                 | petit aéroport |
| Fort Chimo   | QU    | 58   | 6    | 68    | 25   | 37                  | éloigné        |
| Maniwaki     | QU    | 46   | 23   | 75    | 58   | 171                 | suburbain      |
| Nitchequon   | QU    | 53   | 12   | 70    | 54   | 537                 | éloigné        |
| Quebec City  | QU    | 46   | 48   | 71    | 24   | 74                  | grand aéroport |
| St. Hubert   | QU    | 45   | 31   | 73    | 25   | 28                  | grand aéroport |
| Sept Isles   | QU    | 50   | 13   | 66    | 15   | 56                  | petit aéroport |
| Acadia Fes   | NB    | 46   | 0    | 66    | 22   | 62                  | rural          |
| Charlo       | NB    | 48   | 0    | 66    | 20   | 39                  | petit aéroport |
| Saint John   | NB    | 45   | 19   | 65    | 53   | 110                 | grand aéroport |
| Kejimikujik  | NS    | 44   | 26   | 65    | 12   | 128                 | rural          |
| Sable Island | NS    | 43   | 56   | 60    | 1    | 5                   | éloigné        |
| Shelburne    | NS    | 43   | 43   | 65    | 15   | 31                  | rural          |
| Truro        | NS    | 45   | 22   | 63    | 16   | 41                  | rural          |
| Gander       | TN    | 48   | 57   | 54    | 34   | 152                 | grand aéroport |
| Goose        | TN    | 53   | 19   | 60    | 22   | 37                  | grand aéroport |
| Stephenville | TN    | 48   | 32   | 58    | 33   | 27                  | petit aéroport |





TABLEAU 2: Méthode d'analyse chimique

| Variable                                  | Méthode d'analyse*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unités                  | Limite de détection |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------------------|
| pH                                        | Électrométrique. Le pH de l'échantillon est mesuré à l'aide d'un pH-mètre étalonné avec des solutions tampons standards. Électrodes de verre et à calomel ( $\text{Hg}_2 \text{Cl}_2$ )                                                                                                                                                                                                                                                                                                                                                               | pH                      | --                  |
| Conductivité                              | Mesurée à l'aide d'un conductivimètre à électrodes de platine réglé pour 25°C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | $\mu\text{S}/\text{cm}$ | 0.2                 |
| Sulfate (dissous)                         | Colorimètre sur un auto-analyseur avec $\text{BaCl}_2$ et bleu de méthylthymol. Une solution équimolaire de $\text{BaCl}_2$ et de bleu de méthylthymol réagit sur l'ion $\text{SO}_4^{2-}$ à un pH compris entre 2.3 et 3.0. On porte le pH à 12.5-13.0 et le Ba en excès réagit avec le bleu de méthylthymol. L'absorptivité du bleu de méthylthymol en excès se mesure à 460 nm.                                                                                                                                                                    | mg/l                    | 0.2                 |
| Nitrate/<br>Nitrite<br>(azote<br>dissous) | Colorimétrie sur un auto-analyseur. On passe une partie aliquote de l'échantillon mélangée à une solution tampon de $\text{NH}_4 \text{Cl}-\text{NH}_4 \text{OH}$ (pH 5.5) par une colonne de limailles de Cu-Cd. On ajoute alors une solution de sulfanilamide, de dihydrochlorure de N-naphtyl-1-éthylène-diamine, et de $\text{H}_3\text{PO}_4$ , pour former un colorant azoïque. L'intensité de la coloration se mesure à l'aide d'un spectromètre à 550 nm et se compare à des solutions ioniques standards de $\text{NO}_3$ et $\text{NO}_2$ . | mg/l                    | 0.005               |

\* Les échantillons sont décantés si des particules de matière y sont visibles.

TABLEAU 2: Méthode d'analyse chimique (suite)

| Variable                    | Méthode d'analyse *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unités | Limite de détection |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------------|
| Ammoniac<br>(azote dissous) | Méthode colorimétrique sur un auto-analyseur avec de l'alkylphénol, du tartrate de sodium et de potassium et du NaClO (réaction Berthelot) à 660 nm.                                                                                                                                                                                                                                                                                                                                                                                                  | mg/l   | 0.001               |
| Magnésium<br>(dissous)      | Absorption atomique par aspiration directe. Une partie aliquote de l'échantillon est mélangée à une solution standard de $\text{LaCl}_3$ . La solution est aspirée. L'absorption se mesure au spectrophotomètre à 285.2 nm et se compare à celle de solutions standards de Mg. On utilise une flamme réductrice acétylène-air.                                                                                                                                                                                                                        | mg/l   | 0.01                |
| Sodium<br>(dissous)         | Photométrie de flamme, étalon incorporé à l'auto-analyseur. Une partie aliquote de l'échantillon est mélangée à une solution de $\text{LiNO}_3$ et, au besoin, dialysée dans de l'eau distillée. Cette solution est aspirée dans un photomètre à flamme. L'émission de lumière est mesurée à 589 nm et comparée à celle d'un étalon de Li incorporé, calibré à 671 nm. Le photomètre à flamme est étalonné par comparaison de solutions standards de sodium à l'étalon incorporé de Li. On utilise une flamme oxydante de gaz naturel $-\text{O}_2$ . | mg/l   | 0.02                |
| Chlorure<br>(dissous)       | Colorimétrie sur un auto-analyseur avec du nitrate de fer et du thiocyanate de mercure. Une partie aliquote du filtrat est mélangée de $\text{Hg}(\text{SCN})_2$ et de $\text{Fe}(\text{NO}_3)_3$ . La couleur qui en résulte est mesurée au spectro-photomètre à 489 nm et comparée à des solutions étalons d'ions chlorure préparées de la même façon, et à des solutions de réactifs.                                                                                                                                                              | mg/l   | 0.05                |

\* Les échantillons sont décantés si des particules de matière y sont visibles.



TABLEAU 2: Méthode d'analyse Chimique (suite)

| Variable               | Méthode d'analyse *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unités | Limite de détection |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------------|
| Potassium<br>(dissous) | Photométrie de flamme, étalon incorporé à l'auto-analyseur. Une partie aliquote de l'échantillon est alors mélangée à une solution de $\text{LiNO}_3$ et, au besoin, dialysée dans de l'eau distillée. Cette solution est aspirée dans un photomètre à flamme. L'émission de lumière est mesurée à 768 nm et comparée à celle de l'étalon de Li incorporé, calibré à 671 nm. Le photomètre de flamme est étalonné à l'aide de solutions standards de potassium et des étalons de Li incorporés. On utilise une flamme oxydante de gaz naturel - $\text{O}_2$ . | mg/l   | 0.02                |
| Calcium<br>(dissous)   | Absorption atomique. On ajoute du $\text{LaCl}_3$ à une partie aliquote du filtrat qui est ensuite aspirée. L'absorptivité se mesure au spectrophotomètre à 422.7 nm et se compare à celle de solutions standards de calcium et à une solution de réactif.                                                                                                                                                                                                                                                                                                     | mg/l   | 0.01                |
| Alcalinité             | On porte le pH de l'échantillon à 4.0 et on fait barboter de l'air pour dégager le $\text{CO}_2$ formé au cours de l'acidification à partir du $\text{CO}_3$ et du $\text{HCO}_3$ . On porte ensuite le pH de la solution à 5.6 c.-à-d. au pH de l'eau distillé en équilibre avec le $\text{CO}_2$ atmosphérique. Un résultat négatif indique l'alcalinité.                                                                                                                                                                                                    | H + eq | --                  |

\* Les échantillons sont décantés si des particules de matière y sont visibles.

### 3. LES DONNÉES MENSUELLES

Les données mensuelles sont présentées à l'aide de deux formats: des tableaux et des graphiques. Tous les paramètres analysés par le laboratoire sont inclus. Les concentrations ioniques sont données en  $\mu\text{eq/l}$ . L'Annexe I contient des tableaux de conversion à d'autres unités. D'autres paramètres ont été ajoutés à ces premiers. Le tableau 3 donne une liste des différents paramètres présentés dans le présent rapport ainsi que les symboles utilisés.

#### 3.1 Les tableaux

L'Annexe II contient des tableaux des valeurs mensuelles pour les différents paramètres pour chaque station. Un espace blanc indique que la valeur n'est pas disponible. Une donnée, qui a été éliminée, est signalée par le symbole "ELIM", tandis que "SLD" est utilisé pour une valeur sous la limite de détection. Quelques données, notées "SLD" dans le sommaire des données du RCEP 1981 (SEA, 1982c), ont été éliminées.

Les concentrations en sulfate, corrigées pour le sel de mer, ont été calculées en utilisant les concentrations en sodium et un rapport molaire sodium/sulphate dans l'eau de mer de 0.059. Le pourcentage de correction est défini comme:

$$5.9 \times \frac{[\text{Na}^+]}{[\text{SO}_4^{=}]}$$

où les concentrations ioniques sont en  $\mu\text{mole/l}$ .

Pour le calcul de l'équilibre ionique (cations/anions), on a utilisé les ions suivants pour la somme des cations:  $\text{H}^+$ ,  $\text{NH}_4^+$ ,  $\text{Ca}^{++}$ ,  $\text{Na}^+$ ,  $\text{Mg}^{++}$  et  $\text{K}^+$ . La somme des anions inclut  $\text{SO}_4^{=}$ ,  $\text{NO}_3^-$  et  $\text{Cl}^-$ . Le bi-carbonate  $\text{HCO}_3^-$  a aussi été additionné dans le cas des échantillons ayant un pH supérieur à 5.6. Sa concentration a été estimée en utilisant l'alcalinité exprimée en milligramme par litre de  $\text{CaCO}_3$ . Un poids moléculaire de 50 a été employé.



TABLEAU 3: Les variables présentées dans le rapport

| Variable                                  | Symbole        | Commentaire                                                                                                                                                                                                                                |
|-------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Jours                                     | JOURS          | Le nombre total de jours de collecte de l'échantillon.                                                                                                                                                                                     |
| Hauteur recueillie dans le collecteur     | PREC C         | Hauteur, exprimée en centimètres d'eau, des précipitations recueillies dans le collecteur au cours de la période de collecte.                                                                                                              |
| Hauteur recueillie dans la jauge standard | PREC S         | Hauteur, exprimée en centimètres d'eau, des précipitations recueillies dans la jauge standard au site de prélèvement au cours de la période de collecte.                                                                                   |
| Hauteur des précipitations annuelles      | PREC T         | Hauteur des précipitations annuelles exprimée en centimètres d'eau au site de prélèvement obtenue en utilisant les données climatologiques (si la donnée climatologique était manquante, la valeur pour la jauge standard était utilisée). |
| pH                                        | PH L           | Logarithme négatif de la concentration en ions hydrogènes libres: exprimé en unités pH.                                                                                                                                                    |
| Conductivité électrique                   | COND           | Conductivité électrique exprimée en micro-Siemens par centimètre.                                                                                                                                                                          |
| Sulfate ( $\text{SO}_4^-$ )               | $\text{SO}_4=$ | Concentration en ions en $\mu\text{eq/l}$ .                                                                                                                                                                                                |
| Nitrate ( $\text{NO}_3^-$ )               | $\text{NO}_3-$ | Concentration en ions en $\mu\text{eq/l}$ .                                                                                                                                                                                                |
| Chlorure ( $\text{Cl}^-$ )                | $\text{CL}-$   | Concentration en ions en $\mu\text{eq/l}$ .                                                                                                                                                                                                |
| Ammonium ( $\text{NH}_4^+$ )              | $\text{NH}_4+$ | Concentration en ions en $\mu\text{eq/l}$ .                                                                                                                                                                                                |
| Sodium ( $\text{Na}^+$ )                  | $\text{NA}+$   | Concentration en ions en $\mu\text{eq/l}$ .                                                                                                                                                                                                |
| Potassium ( $\text{K}^+$ )                | $\text{K}+$    | Concentration en ions en $\mu\text{eq/l}$ .                                                                                                                                                                                                |
| Magnésium ( $\text{Mg}^{++}$ )            | $\text{MG}++$  | Concentration en ions en $\mu\text{eq/l}$ .                                                                                                                                                                                                |
| Calcium ( $\text{Ca}^{++}$ )              | $\text{Ca}++$  | Concentration en ions en $\mu\text{eq/l}$ .                                                                                                                                                                                                |

TABLEAU 3: Les variables présentées dans le rapport (suite)

| Variable                           | Symbole  | Commentaire                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sulfate corrigé pour le sel de mer | SO4 = C  | Concentration en ions en $\mu\text{eq/l}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Pourcentage de correction          | COR %    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Balance ionique                    | IONB +/- | Le rapport entre la somme des ions positifs et la somme des ions négatifs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Alcalinité                         | ALK      | En milligramme par litre de $\text{CaCO}_3$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Remarques                          | REMARQUE | <p>Chaque chiffre correspond à une remarque de contrôle de la qualité:</p> <ul style="list-style-type: none"> <li>0 - aucune remarque</li> <li>1 - présence visible de terre dans l'échantillon</li> <li>2 - matière organique visible dans l'échantillon (alques, feuilles, etc.)</li> <li>3 - présence d'un ou plusieurs insectes dans l'échantillon</li> <li>4 - action importante de l'évaporation sur l'échantillon</li> <li>5 - suppression d'une ou plusieurs données</li> <li>6 - présence de sel de mer dans l'échantillon</li> <li>7 - période de collecte inférieure ou égale à 21 jours du mois</li> <li>8 - collecte manuelle exclusivement pendant les périodes de précipitations</li> <li>9 - échantillon insuffisant pour analyse complète</li> </ul> |



Si, en calculant les deux sommes ioniques, un ou plusieurs ions étaient sous la limite de détection, la somme de tous les autres ions était évaluée et comparée à la somme des limites de détection. Si cette dernière était supérieure à 10% de la première, aucune valeur n'est inscrite pour l'équilibre ionique dans le tableau. Dans le cas contraire, la moitié de la somme des limites de détection a été additionnée à la somme des autres ions pour obtenir le résultat final.

### 3.2 Les graphiques

Les données mensuelles pour les concentrations des principaux ions, pour le pH, pour la hauteur des précipitations dans le collecteur et dans la jauge standard (donnée dans l'Annexe II) sont présentées graphiquement dans l'Annexe III. Il y a douze graphiques pour chaque station.

L'échelle de l'axe vertical (celui de gauche), à l'exception des graphiques pour le pH et l'équilibre ionique, a été calculée de façon à minimiser la valeur maximale. Le même intervalle est utilisé pour la hauteur des précipitations dans le collecteur et dans la jauge standard pour les graphiques de la même station. Ils peuvent donc être facilement comparés. On a utilisé la même échelle pour l'axe verticale pour toutes les stations dans le cas du pH et de l'équilibre ionique.

La ligne hachurée, dans les graphiques pour le pH, indique la valeur 5.6 qui est habituellement utilisée comme limite entre les précipitations acides et non-acides. Les valeurs maximales et minimales pour cet axe sont aussi une indication de l'intervalle des variations des pH mensuels (en fait le pH mensuel minimal est 3.8 et le pH mensuel maximal 7.9 en 1981).

Dans les graphiques pour l'équilibre ionique, la valeur 1, obtenue si les sommes des cations et des anions s'équilibrent est indiquée par une ligne continue. Les lignes hachurées des deux côtes de celle-ci sont pour les valeurs 0.8 et 1.2. Elles correspondent à des variations de 20% par rapport à un équilibre ionique parfait de 1. La valeur maximale, qui peut être indiquée, est 2. Par conséquent, les échantillons ayant un équilibre ionique supérieur à 2, sont représentés par une ligne continue s'étendant entre les valeurs 1 et 2.

L'axe de droite, dénoté Z est celui pour le contrôle de la qualité. La définition de ce paramètre est donnée dans la prochaine section.

### 3.3 Axe pour le contrôle de la qualité

L'axe pour le contrôle de la qualité a été développé pour faciliter l'évaluation des données. Il illustre l'amplitude, en unité d'écart type, de la variation de la donnée par rapport à la moyenne des années 1980 et 1981. Une distribution normale logarithmique a été employées.  $Z_i$  pour un mois, i, et une variable  $[x]$  est définie par:

$$Z_i = \frac{\ln [x]_i - \ln [\bar{x}]}{\ln (STD)}$$

$[x]$  est calculé en utilisant la relation

$$[\bar{x}] = e^{\frac{1}{N} \sum_j [x]_j}$$

et STD la relation

$$STD = e^{\frac{1}{N-1} \sqrt{\sum_j ([x]_j - [\bar{x}])^2}}$$

On a utilisé les données pour 1980 et 1981 dans le calcul des sommes. Les mois suivants de 1980 ont été éliminés: janvier et février pour Revelstoke, février pour Terrace, Vancouver et The Pas. Dans les graphiques (Annexe III), la valeur 0.0 pour Z correspond à la valeur moyenne sur l'axe de gauche. La valeur maximale de Z a été obtenue en utilisant celle de l'axe de gauche. On a fixé la valeur minimale pour que la donnée minimale non-manguante ait une valeur de z supérieure à cette limite. Les valeurs moyennes ( $[\bar{x}]$ ) et les écarts types (STD) pour toutes les variables et stations sont données dans l'Annexe IV.



Si au cours du calcul de ces deux variables, il y avait une ou plusieurs données sous leur limite de détection, un premier estimé de la moyenne était fait en utilisant la moitié de la valeur de la limite de détection pour cette ou ces variables. Si la valeur ainsi obtenue était inférieure au double de la limite de détection maximale, elle était éliminée. Si l'inverse était vrai, une seconde valeur pour la moyenne était alors calculée en utilisant la valeur de la ou des limites de détection. On la comparait alors avec le premier estimé. Si les deux valeurs différaient par plus de 30%, la valeur moyenne était éliminée. Les valeurs pour les moyennes et les écarts types présentées dans l'Annexe IV sont celles obtenues en utilisant la moitié des limites de détection. Les valeurs, rejetées pour une ou plusieurs des raisons mentionnées précédemment, sont indiquées par le symbole "ELIM" dans les tableaux et un axe Z manquant dans les graphiques (Annexe III).

#### 4. LES CONCENTRATIONS MOYENNES PONDÉRÉES PAR LA HAUTEUR DES PRÉCIPITATIONS

Les hauteurs des précipitations telles que mesurées par la jauge standard pour la pluie et la jauge nipher pour la neige ont été utilisées dans le calcul des moyennes annuelles. On a utilisé la relation suivante:

$$\bar{C} = \frac{\sum_1 C_i P_i}{\sum_1 P_i}$$

où  $C_i$  est la concentration mensuelle et  $P_i$  la hauteur mensuelle des précipitations. La moyenne était éliminée s'il y avait moins que 8 mois présents. Le test décrit dans la section 3.3 a aussi été utilisé dans le calcul des moyennes. Les mois ayant une période d'échantillonnage inférieure à 20 jours ont été éliminés. Aucune correction pour l'évaporation n'a été faite.

Le pH moyen a été obtenu en convertissant premièrement les pH mensuels en concentrations des ions d'hydrogène. Puis, on a calculé la moyenne pondérée par la hauteur des précipitations. La valeur ainsi obtenue a été alors convertie en unité pH en prenant la valeur négative de l'anti-logarithme.



#### 4.1 Les tableaux

On a groupé dans l'Annexe V les tableaux des moyennes annuelles pondérées par la hauteur des précipitations pour le pH et les concentrations en  $H^+$ ,  $NH_4^+$ ,  $Ca^{++}$ ,  $Mg^{++}$ ,  $Na^+$ ,  $K^+$ ,  $SO_4^{=}$ ,  $NO_3^-$  et  $Cl^-$ . Les moyennes des concentrations en  $SO_4^{=}$  corrigées pour le sel de mer et les pourcentages de correction y sont aussi données. Le symbole "ELIM" signifie que la valeur a été éliminée pour une des raisons précédemment indiquées. Le nombre de mois utilisés dans les calculs est aussi inscrit.

#### 4.2 Les répartitions spatiales

On a dessiné à l'aide de ces valeurs des cartes illustrant la répartition spatiale des moyennes annuelles pondérées par la hauteur des précipitations. On trouve dans l'Annexe VI de telles cartes pour les variables suivantes: pH,  $H^+$ ,  $Ca^{++}$ ,  $NH_4^+$ ,  $Mg^{++}$ ,  $K^+$ ,  $NO_3^-$ ,  $Cl^-$  et  $SO_4^{=}$ , corrigée pour le sel de mer. Les isoplèthes ont été analysées à la main, digitalisées et puis dessinées à l'aide d'un ordinateur en utilisant une fonction "Spline". Une projection Lambert bi-parallèle, conforme, conique et vraie à 49° et 77° nord a été employée. Les isoplèthes sont hachurées dans les régions où leur position est complètement incertaine.

Quelques stations ont été éliminées lors de l'analyse des isoplèthes. On en donne une liste dans le Tableau 4. Ces stations ont aussi été exclues lors de l'analyse de la répartition spatiale des dépôts annuels (Section 5.2). Fort McMurray a été complètement éliminé car cette station n'est pas représentative de la région.

### 5. LES DÉPÔTS ANNUELS

Les dépôts annuels ont été calculés en multipliant les concentrations ioniques moyennes (Section 4.) par la hauteur des précipitations annuelles. Cette dernière a été obtenue en additionnant les valeurs mensuelles rapportées par les stations climatologiques du SEA. On a utilisé la valeur fournie par la jauge standard dans le cas d'un mois manquant. Si un ou plusieurs mois étaient manquants au cours de l'année, le dépôt annuel n'était pas calculé.



TABLEAU 4: Liste des stations qui ont été éliminées lors de l'analyse des répartitions spatiales des concentrations ioniques et des dépôts annuels. Ces stations sont indiquées par le symbole X.

| Station       | pH | H <sup>+</sup> | Ca <sup>++</sup> | NH <sub>4</sub> <sup>+</sup> | Na <sup>+</sup> | Mg <sup>++</sup> | K <sup>+</sup> | SO <sub>4</sub> <sup>-</sup> | NO <sub>3</sub> | Cl <sup>-</sup> |
|---------------|----|----------------|------------------|------------------------------|-----------------|------------------|----------------|------------------------------|-----------------|-----------------|
| Hay River     |    |                | X                | X                            |                 |                  |                |                              |                 |                 |
| Inuvik        |    |                | X                |                              |                 | X                |                |                              |                 |                 |
| Whitehorse    |    |                | X                |                              |                 | X                |                |                              |                 |                 |
| Fort Nelson   |    |                |                  | X                            |                 |                  |                |                              |                 |                 |
| Fort St. John |    |                | X                |                              |                 |                  |                |                              |                 |                 |
| Fort McMurray | X  | X              | X                | X                            | X               | X                | X              | X                            | X               | X               |
| Kindersley    |    |                |                  |                              | X               |                  |                |                              |                 |                 |
| Stephenville  |    |                |                  |                              |                 | X                |                |                              |                 | X               |

## 5.1 Les tableaux

L'Annexe VII présente des tableaux des dépôts annuels en  $H^+$ ,  $Ca^{++}$ ,  $NH_4^+$ ,  $Mg^{++}$ ,  $Na^+$ ,  $K^+$ ,  $SO_4^-$ ,  $NO_3^-$ ,  $Cl^-$  et  $SO_4^-$ , corrigée pour le sel de mer. La hauteur annuelle des précipitations (PREC T) est aussi indiquée. Les dépôts annuels sont donnés en millimole équivalent par mètre carré et par année ( $MEQ/M^2/A$ ). Des tableaux de conversion à d'autres unités sont données dans l'Annexe I. Le symbole "ELIM" pour la hauteur annuelle des précipitations indique qu'une ou plusieurs valeurs mensuelles étaient manquantes. Le même symbole pour une variable, à une station où la hauteur des précipitations est présente, indique que la concentration moyenne, pondérée par la hauteur des précipitations, a été éliminée (voir section 4).

## 5.2 Les répartitions spatiales

Pour dessiner les cartes de la répartition des dépôts annuels, on s'est servi d'une caractéristique importante du lavage atmosphérique par les précipitations, c.-à-d. le fait que, sur une base annuelle, les champs de concentrations dans les précipitations varient moins, spatialement, que les champs de hauteur des précipitations (Granat, 1978). Par conséquent, un réseau plus dense est requis pour déterminer les variations spatiales de la hauteur des précipitations que celles de sa composition chimique.

Lorsqu'on a déterminé la répartition spatiale du dépôt d'un ion précis, on a donc utilisé les mesures de la hauteur des précipitations annuelles non seulement des stations du RECP mais aussi des stations climatologiques canadiennes de classe 1. En superposant un champs de concentration ionique sur une carte de la hauteur des précipitations, on a pu calculer le dépôt à chaque station qui enregistre cette hauteur. Les isoplèthes ont alors été analysées à la main. La carte finale a été produite de la même façon que les cartes de répartitions spatiales des concentrations moyennes. Une carte de la répartition spatiale du dépôt annuel a été construite pour tous les ions présentés dans les tableaux de l'Annexe VII (à l'exception de  $SO_4^-$ ). Ces cartes se trouvent dans l'Annexe VIII. Les noms des stations éliminées lors de l'analyse des isoplèthes sont donnés dans le Tableau 4.



## REFERENCES

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TABLE OF CONVERSION FACTORS FOR CONCENTRATION UNITS  
TABLEAU DES FACTEURS DE CONVERSION POUR LES UNITÉS DE CONCENTRATION

| UNITS | mg l <sup>-1</sup> | μg l <sup>-1</sup> |
|-------|--------------------|--------------------|
| TEVA  | μg l <sup>-1</sup> | ng l <sup>-1</sup> |
| TCW   |                    |                    |

ANNEXE I

TABLEAUX DE CONVERSIONS POUR LES UNITÉS DE CONCENTRATION  
ET DE DÉPÔTS

APPENDIX I

TABLES OF CONVERSION FACTORS FOR CONCENTRATION AND  
DEPOSITION UNITS

|    |     |          |
|----|-----|----------|
| μg | 0.5 | 0.0005   |
| ng | 1.0 | 0.001    |
| pg | 1.0 | 0.000001 |

Conversion for Bq/g

Conversion for Bq/kg

10 μg l<sup>-1</sup> = 0.01 mg l<sup>-1</sup> = 0.01 μg ml<sup>-1</sup>





TABLE OF CONVERSION FACTORS FOR CONCENTRATION UNITS

TABLEAU DES FACTEURS DE CONVERSION POUR LES UNITÉS DE CONCENTRATION

| FROM/DE            | $\mu\text{eq l}^{-1}$   | $\mu\text{mole l}^{-1}$ |
|--------------------|-------------------------|-------------------------|
| TO/A               | $\mu\text{mole l}^{-1}$ | $\text{mg l}^{-1}$      |
| ION                |                         |                         |
| $\text{H}^+$       | 1.0                     | 0.0010                  |
| $\text{NH}_4^+$    | 1.0                     | 0.01805                 |
| $\text{Na}^+$      | 1.0                     | 0.02299                 |
| $\text{Ca}^{++}$   | 0.5                     | 0.04008                 |
| $\text{Mg}^{++}$   | 0.5                     | 0.02431                 |
| $\text{K}^+$       | 1.0                     | 0.03911                 |
| $\text{SO}_4^{--}$ | 0.5                     | 0.09606                 |
| $\text{NO}_3^-$    | 1.0                     | 0.06201                 |
| $\text{Cl}^-$      | 1.0                     | 0.03545                 |

example for  $\text{SO}_4^{--}$ :

exemple pour l'ion  $\text{SO}_4^{--}$ :

$$10 \mu\text{eq l}^{-1} = 5 \mu\text{mole l}^{-1} = 0.48 \text{ mg l}^{-1}$$



TABLE OF CONVERSION FACTORS FOR DEPOSITION UNITS  
TABLEAU DES FACTEURS DE CONVERSION POUR LES UNITÉS DE DÉPÔT

| FROM/DE                       | meq m <sup>-2</sup>   | mmole m <sup>-2</sup> | mg m <sup>-2</sup>  |
|-------------------------------|-----------------------|-----------------------|---------------------|
| TO/A                          | mmole m <sup>-2</sup> | mg m <sup>-2</sup>    | kg ha <sup>-1</sup> |
| ION                           |                       |                       |                     |
| H <sup>+</sup>                | 1.0                   | 1.00                  | 0.01                |
| NH <sub>4</sub> <sup>+</sup>  | 1.0                   | 18.05                 | 0.01                |
| Na <sup>+</sup>               | 1.0                   | 22.99                 | 0.01                |
| Ca <sup>++</sup>              | 0.5                   | 40.08                 | 0.01                |
| Mg <sup>++</sup>              | 0.5                   | 24.31                 | 0.01                |
| K <sup>+</sup>                | 1.0                   | 39.11                 | 0.01                |
| SO <sub>4</sub> <sup>2-</sup> | 0.5                   | 96.06                 | 0.01                |
| NO <sub>3</sub> <sup>-</sup>  | 1.0                   | 62.01                 | 0.01                |
| Cl <sup>-</sup>               | 1.0                   | 35.45                 | 0.01                |

example for SO<sub>4</sub><sup>2-</sup>:

exemple pour l'ion SO<sub>4</sub><sup>2-</sup>:

$$10 \text{ meq m}^{-1} = 5 \text{ mmole m}^{-2} = 480.3 \text{ mg m}^{-3} = 4.8 \text{ kg ha}^{-1}$$

STATION 1071 MILL POND  
1962

| MONTH<br>NO. 1 | DATE<br>JANU. | CHLOROPHYLL<br>TERRESTRIAL | CHLOROPHYLL<br>AQUATIC | PHOS. 1<br>PPM | PHOS. 2<br>PPM | ALP     | PH. 1 |
|----------------|---------------|----------------------------|------------------------|----------------|----------------|---------|-------|
| 1              | 31.           | 25.                        | 8.9                    | 8.9            | 8.7            |         | 8.9   |
| 2              | 29.           | 10.                        | 15.0                   | 1.2            | 0.6            |         | 9.7   |
| 3              | 28.           | 2.                         | 7.2                    | 1.9            | 0.9            |         | 1.8   |
| 4              | 8.            |                            |                        |                |                |         |       |
| 5              | 8.            |                            |                        |                |                |         |       |
| 6              | 30.           | 2.                         | 11.9                   | 2.9            | 2.7            |         | 8.7   |
| 7              | 21.           | 2.                         | 9.3                    | 2.9            | 2.9            |         | 9.9   |
| 8              | 2.            |                            |                        |                |                |         |       |
| 9              | 27.           | 2.                         | 4.8                    | 2.2            | 2.7            | BDL/SLD | 5.4   |
| 10             | 21.           | 25.                        | 2.9                    | 0.9            | 0.9            |         | 10.2  |
| 11             | 20.           | 2.                         |                        | 1.2            | 0.9            |         | 5.2   |
| 12             | 21.           | 8.                         |                        | 2.9            | 2.2            | BDL/SLD | 5.7   |

# ANNEXE II

TABLEAUX DES DONNÉES MENSUELLES OBSERVÉES. "ELIM" INDIQUE QUE LA  
DONNÉE A ÉTÉ ÉLIMINÉE, "SLD" QU'ELLE EST SOUS LA LIMITE DE  
 DÉTECTION ET UN ESPACE BLANC QU'ELLE N'EST PAS DISPONIBLE.

| MONTH<br>NO. 1 | DATE<br>JANU. | CHLOROPHYLL<br>TERRESTRIAL | CHLOROPHYLL<br>AQUATIC | PHOS. 1<br>PPM | PHOS. 2<br>PPM | ALP     | PH. 1   |
|----------------|---------------|----------------------------|------------------------|----------------|----------------|---------|---------|
| 1              | 31.8          | 0.2                        | BDL/SLD                | BDL/SLD        | BDL/SLD        | BDL/SLD | ELIM    |
| 2              | 29.7          | 0.4                        |                        |                | 1.2            | 1.2     |         |
| 3              | 18.2          | BDL/SLD                    |                        |                |                |         |         |
| 4              |               |                            |                        |                |                |         |         |
| 5              |               |                            |                        |                |                |         |         |
| 6              | 18.5          |                            |                        |                |                |         |         |
| 7              |               |                            |                        |                |                |         |         |
| 8              | 5.0           | 0.9                        | 2.9                    | 2.7            | 2.0            | BDL/SLD | BDL/SLD |
| 9              | 8.2           | 0.9                        | 10.5                   | 2.7            | 1.5            |         | 2.2     |
| 10             | 10.0          | 8.9                        | 2.5                    | 2.9            | BDL/SLD        |         | 7.2     |
| 11             | 5.0           | 6.2                        | 5.0                    | 19.2           | 1.5            |         | 2.2     |

# APPENDIX II

TABLES OF OBSERVED MONTHLY DATA. "DEL" DENOTES THAT THE DATA  
HAS BEEN DELETED, "BDL" THAT IT IS BELOW THE DETECTION LIMIT  
AND A BLANK SPACE THAT IT IS NOT AVAILABLE.

| MONTH<br>NO. 1 | DATE<br>JANU. | CHLOROPHYLL<br>TERRESTRIAL | CHLOROPHYLL<br>AQUATIC | PHOS. 1<br>PPM | PHOS. 2<br>PPM | ALP | PH. 1 |
|----------------|---------------|----------------------------|------------------------|----------------|----------------|-----|-------|
| 1              | 8.            | BDL/SLD                    | 7.9                    |                |                |     |       |
| 2              | 8.            | BDL/SLD                    | BDL/SLD                |                |                |     |       |
| 3              | 8.            | BDL/SLD                    | 18.9                   | 1.2            |                |     | 8.2   |
| 4              |               |                            |                        |                |                |     |       |
| 5              |               |                            |                        |                |                |     |       |
| 6              | 19.           | BDL/SLD                    | 0.2                    | 4.0            | 19.            |     | 4.7   |
| 7              | 12.           |                            | BDL/SLD                | 1.4            | 17.            |     | 8.2   |
| 8              |               |                            |                        |                |                |     |       |
| 9              | 15.           | 2.9                        | 8.7                    | 2.2            | 19.            |     | 2.2   |
| 10             | 19.           | 0.9                        | BDL/SLD                |                | 18.            |     | 5.0   |
| 11             | 12.           | BDL/SLD                    | 2.0                    | 4.8            | 12.            |     | 4.0   |
| 12             | 12.           | BDL/SLD                    | 4.5                    | 1.0            | 2.             |     | 22.5  |





STATION : FORT RELIANCE  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND.<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|----------------|--------------|--------------|---------|------|
| J             | 31.           | 25.                 | 8.9            | 0.5          | 0.7          |         | 4.9  |
| F             | 28.           | 15.                 | 10.0           | 1.1          | 0.6          |         | 4.7  |
| M             | 31.           | 1.                  | 9.2            | 1.9          | 0.8          |         | 4.8  |
| A             | 0.            |                     |                |              |              |         |      |
| M             | 0.            |                     |                |              |              |         |      |
| J             | 30.           | 2.                  | 11.3           | 6.6          | 5.7          |         | 4.7  |
| J             | 31.           | 0.                  | 9.3            | 4.9          | 3.9          |         | 4.8  |
| A             | 0.            |                     |                |              |              |         |      |
| S             | 30.           | 2.                  | 4.8            | 3.2          | 2.7          | BDL/SLD | 5.6  |
| O             | 31.           | 25.                 | 5.9            | 0.9          | 0.6          |         | 5.2  |
| N             | 30.           | 2.                  | 6.5            | 1.1          | 0.8          |         | 5.0  |
| D             | 31.           | 0.                  | 6.7            | 0.9          | 0.3          | BDL/SLD | 5.3  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 12.6        | 0.2           | BDL/SLD       | DEL/ELIM     | BDL/SLD       | DEL/ELIM    |
| F             | 20.0        | 0.4           | 4.5           | 6.5          | 1.6           | 1.0         |
| M             | 15.8        | BDL/SLD       | 7.5           | 4.3          | 1.6           | 0.5         |
| A             |             |               |               |              |               |             |
| M             |             |               |               |              |               |             |
| J             | 20.0        | BDL/SLD       | 4.5           | 1.7          | 0.8           | BDL/SLD     |
| J             | 15.8        | BDL/SLD       | 2.5           | 3.5          | 1.6           | BDL/SLD     |
| A             |             |               |               |              |               |             |
| S             | 2.5         | 0.4           | 25.9          | 3.9          | BDL/SLD       | BDL/SLD     |
| O             | 6.3         | 0.9           | 10.5          | 8.7          | 1.6           | 0.5         |
| N             | 10.0        | 0.4           | 3.5           | 3.5          | BDL/SLD       | 1.0         |
| D             | 5.0         | 0.3           | 6.0           | 19.6         | 1.6           | 1.5         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 6.             | BDL/SLD       | 7.9          |          |                  |       |
| F             | 6.             | BDL/SLD       | DEL/ELIM     |          | 5.               | 12.5  |
| M             | 8.             | BDL/SLD       | 16.9         | 1.2      | 8.               | 6.2   |
| A             |                |               |              |          |                  |       |
| M             |                |               |              |          |                  |       |
| J             | 19.            | BDL/SLD       | 8.5          | 1.0      | 19.              | 1.1   |
| J             | 12.            | 2.1           | BDL/SLD      | 1.6      | 12.              | 3.3   |
| A             |                |               |              |          |                  |       |
| S             | 15.            | 2.9           | 6.5          | 1.3      | 14.              | 3.2   |
| O             | 19.            | 0.9           | DEL/ELIM     |          | 18.              | 5.6   |
| N             | 10.            | BDL/SLD       | 2.8          | 1.4      | 10.              | 4.0   |
| D             | 10.            | BDL/SLD       | 8.5          | 1.8      | 8.               | 22.5  |



STATION : HAY RIVER  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 31.           | 12.                 | 40.2          | 0.5          | 0.2          |     | 6.9  |
| F             | 28.           | 1.                  | 26.0          | 1.6          | 0.3          |     | 7.2  |
| M             | 31.           | 1.                  | 27.8          | 0.9          | 0.2          |     | 7.3  |
| A             | 30.           | 1.                  | 12.5          | 5.3          | 1.6          | 0.7 | 6.2  |
| M             | 0.            |                     |               |              |              |     |      |
| J             | 30.           | 12.                 | 69.2          | 0.7          | 0.2          |     | 6.8  |
| J             | 31.           | 12.                 | 16.8          | 1.8          | 1.1          | 0.6 | 6.1  |
| A             | 31.           | 123.                | 15.2          | 5.4          | 5.0          | 4.1 | 6.3  |
| S             | 30.           | 12.                 | 11.9          | 4.1          | 2.8          | 2.8 | 6.7  |
| O             | 0.            |                     |               |              |              |     |      |
| N             | 30.           | 12.                 | 10.2          | 2.4          | 0.4          | 1.5 | 6.5  |
| D             | 31.           | 1.                  | 9.0           | 1.9          | 0.4          | 1.3 | 6.6  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 0.1         | 2.7           | 201.1         | 172.7        | 41.1          | 1.3         |
| F             | 0.1         | 12.0          | 164.7         | 12.6         | 38.7          | 3.1         |
| M             | 0.1         | 17.4          | 130.7         | 36.1         | 23.9          | 10.0        |
| A             | 0.6         | 15.0          | 55.4          | 13.5         | 15.6          | 5.1         |
| M             |             |               |               |              |               |             |
| J             | 0.2         | 2.6           | 534.4         | 23.1         | 52.7          | 11.5        |
| J             | 0.8         | 2.1           | 94.8          | 11.3         | 33.7          | 4.3         |
| A             | 0.5         | 84.2          | 28.4          | 2.6          | 7.4           | 2.6         |
| S             | 0.2         | 67.7          | 21.0          | 7.8          | 4.1           | 3.1         |
| O             |             |               |               |              |               |             |
| N             | 0.3         | 0.4           | 51.9          | 13.5         | 9.0           | 6.1         |
| D             | 0.3         | 0.1           | 51.9          | 10.0         | 10.7          | 3.8         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 77.            | 13.6          | 32.4         |          | 56.              | 26.8  |
| F             | 40.            | 7.9           | 16.9         |          | 38.              | 3.8   |
| M             | 44.            | 11.4          | 36.7         |          | 39.              | 9.9   |
| A             | 33.            | 15.0          | 14.1         | 1.4      | 32.              | 4.8   |
| M             |                |               |              |          |                  |       |
| J             | 115.           | 3.6           | 39.5         |          | 112.             | 2.4   |
| J             | 27.            | BDL/SLD       | 16.9         | 2.6      | 26.              | 5.0   |
| A             | 23.            | 5.7           | 2.8          | 1.1      | 23.              | 1.4   |
| S             | 21.            | 6.4           | 9.6          | 1.1      | 20.              | 4.5   |
| O             |                |               |              |          |                  |       |
| N             | 27.            | 8.8           | 16.9         | 1.0      | 25.              | 6.0   |
| D             | 23.            | BDL/SLD       | 11.3         | 1.3      | 22.              | 5.2   |

STATION : INUVIK  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK   | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-------|------|
| J             | 31.           | 12.                 | 20.9          | 1.6          | 0.4          | 5.8   | 6.4  |
| F             | 28.           | 19.                 | 35.1          | 0.7          | 0.7          |       | 7.4  |
| M             | 31.           | 0.                  | 28.8          | 1.0          | 0.3          |       | 7.1  |
| A             | 0.            |                     |               |              |              |       |      |
| M             | 31.           | 1.                  | 43.4          | 0.7          | 0.4          | 9.6   | 6.3  |
| J             | 30.           | 0.                  | 20.6          | 2.8          | 2.9          | 6.7   | 6.3  |
| J             | 31.           | 2.                  | 15.7          | 8.4          | 6.4          | 6.8   | 6.1  |
| A             | 31.           | 1.                  | 88.0          | 2.4          | 1.5          | 37.0  | 6.6  |
| S             | 29.           | 12.                 | 89.1          | 2.7          | 1.0          | 113.0 | 7.9  |
| O             | 0.            |                     |               |              |              |       |      |
| N             | 30.           | 2.                  | 37.1          | 2.7          | 1.7          | 15.5  | 7.1  |
| D             | 31.           | 1.                  | 35.6          | 1.4          | 1.3          | 12.3  | 6.9  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 0.4         | 8.4           | 81.3          | 30.9         | 55.1          | 10.7        |
| F             | 0.0         | 20.6          | 158.7         | 30.4         | 116.8         | 8.9         |
| M             | 0.1         | 17.4          | 130.7         | 17.0         | 110.2         | 4.3         |
| A             |             |               |               |              |               |             |
| M             | 0.5         | 20.5          | 219.1         | 63.5         | 75.7          | 23.0        |
| J             | 0.5         | BDL/SLD       | 127.2         | 18.3         | 39.5          | 6.9         |
| J             | 0.8         | BDL/SLD       | 94.3          | 8.7          | 53.5          | 3.3         |
| A             | 0.3         | 2.1           | 723.6         | 26.1         | 83.1          | 6.1         |
| S             | 0.0         | 6.1           | 833.3         | 20.0         | 31.3          | 5.9         |
| O             |             |               |               |              |               |             |
| N             | 0.1         | BDL/SLD       | 271.5         | 19.1         | 63.3          | 2.8         |
| D             | 0.1         | 13.1          | 205.1         | 19.6         | 113.5         | 4.6         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 23.            | 3.2           | 24.0         | 1.1      | 19.              | 16.1  |
| F             | 62.            | 12.1          | 28.2         |          | 59.              | 5.8   |
| M             | 31.            | 5.7           | 33.9         |          | 29.              | 6.5   |
| A             |                |               |              |          |                  |       |
| M             | 81.            | 12.8          | 62.1         | 1.2      | 74.              | 9.4   |
| J             | 19.            | BDL/SLD       | 16.9         | 1.1      | 17.              | 11.7  |
| J             | 6.             | BDL/SLD       | 2.8          | 1.1      | 5.               | 16.7  |
| A             | 35.            | 5.7           | 23.4         | 1.0      | 32.              | 8.8   |
| S             | 25.            | 4.4           | 19.7         | 0.4      | 23.              | 9.6   |
| O             |                |               |              |          |                  |       |
| N             | 19.            | BDL/SLD       | 19.7         | 1.0      | 16.              | 12.2  |
| D             | 37.            | 4.9           | 19.7         | 1.2      | 35.              | 6.2   |



STATION : MOULD BAY  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 12.                 | 23.0          | 1.5          | 0.3          | 1.3     | 6.4  |
| F             | 0.            |                     |               |              |              |         |      |
| M             | 30.           | 12.                 | 19.6          | 0.1          | 0.8          | BDL/SLD | 5.6  |
| A             | 0.            |                     |               |              |              |         |      |
| M             | 31.           | 1.                  | 14.7          | 6.0          | 4.5          |         | 5.5  |
| J             | 0.            |                     |               |              |              |         |      |
| J             | 6.            | 179.                | 36.4          | 0.3          | 0.2          |         | 4.5  |
| A             | 24.           | 17.                 | 54.1          | 3.7          | 2.0          | 2.7     | 6.2  |
| S             | 0.            |                     |               |              |              |         |      |
| O             | 30.           | 1.                  | 92.4          | 1.1          | 0.5          | 1.9     | 6.9  |
| N             | 30.           | 12.                 | 52.9          | 0.4          | 0.3          |         | 4.3  |
| D             | 31.           | 1.                  | 119.0         | 0.2          | 0.6          |         | 4.8  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 0.4         | 3.2           | 25.9          | 87.4         | 34.6          | 15.9        |
| F             |             |               |               |              |               |             |
| M             | 2.5         | 3.1           | 17.5          | 79.2         | 18.1          | 7.7         |
| A             |             |               |               |              |               |             |
| M             | 3.2         | 12.2          | 27.4          | 37.4         | 14.8          | 4.9         |
| J             |             |               |               |              |               |             |
| J             | 31.6        |               | 49.9          | 87.0         | 18.1          | 16.4        |
| A             | 0.6         | 55.4          | 84.3          | 120.5        | 41.1          | 49.9        |
| S             |             |               |               |              |               |             |
| O             | 0.1         | 9.4           | 78.3          | 491.1        | 127.5         | 19.7        |
| N             | 50.1        | 0.4           | 45.9          | 227.9        | 67.5          | 12.3        |
| D             | 15.8        | 3.8           | 55.9          | 654.2        | 213.9         | 32.2        |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 33.            | 2.8           | 112.8        | 1.0      | 23.              | 31.4  |
| F             |                |               |              |          |                  |       |
| M             | 42.            | 2.9           | 93.1         | 0.9      | 32.              | 22.7  |
| A             |                |               |              |          |                  |       |
| M             | 31.            | 7.9           | 45.1         | 1.2      | 27.              | 14.3  |
| J             |                |               |              |          |                  |       |
| J             | 44.            |               | 62.1         |          | 33.              | 23.8  |
| A             | 31.            | 1.4           | 116.2        | 1.7      | 17.              | 46.2  |
| S             |                |               |              |          |                  |       |
| O             | 62.            | 2.6           | 631.9        | 1.0      | 4.               | 94.1  |
| N             | 42.            | 1.7           | 237.0        | 1.4      | 14.              | 65.5  |
| D             | 54.            | 6.8           | 874.5        | 1.0      |                  |       |

STATION : WHITEHORSE  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 30.           | 1.                  | 9.4           | 1.5          | 0.7          | BDL/SLD | 5.5  |
| F             | 27.           | 9.                  | 42.1          | 1.7          | 0.1          |         | 5.6  |
| M             | 0.            |                     |               |              |              |         |      |
| A             | 0.            |                     |               |              |              |         |      |
| M             | 0.            |                     |               |              |              |         |      |
| J             | 29.           | 1.                  | 17.8          | 3.8          | 2.4          | 5.2     | 6.4  |
| J             | 30.           | 1.                  | 31.9          | 2.7          | 0.9          |         | 4.7  |
| A             | 31.           | 1.                  | 25.6          | 2.6          | 1.2          | 3.8     | 6.5  |
| S             | 30.           | 1.                  | 14.1          | 3.8          | 1.9          | 1.1     | 6.5  |
| O             | 32.           | 12.                 | 9.0           | 2.8          | 1.3          | 1.0     | 6.5  |
| N             | 29.           | 1.                  | 8.3           | 2.1          | 0.9          |         | 5.0  |
| D             | 30.           | 1.                  | 11.1          | 1.3          | 0.7          | 1.0     | 6.4  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 3.2         | 4.3           | 15.0          | 25.7         | 2.5           | 23.3        |
| F             | 2.5         | 1.6           | 63.4          | 32.6         | 10.7          | 11.3        |
| M             |             |               |               |              |               |             |
| A             |             |               |               |              |               |             |
| M             |             |               |               |              |               |             |
| J             | 0.4         | 7.1           | 129.2         | 3.0          | 13.2          | 7.7         |
| J             | 20.0        | 8.7           | 154.7         | 10.4         | 263.3         | 14.1        |
| A             | 0.3         | 1.3           | 189.6         | 7.4          | 14.8          | 8.2         |
| S             | 0.3         | 1.9           | 93.3          | 3.9          | 3.3           | 2.6         |
| O             | 0.3         | BDL/SLD       | 43.9          | 3.5          | 4.9           | 1.3         |
| N             | 10.0        | BDL/SLD       | 23.0          | 1.3          | 3.3           | 0.8         |
| D             | 0.4         | 4.4           | 20.5          | 52.2         | 4.9           | 5.9         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 8.             | 6.6           | 26.8         | 1.8      | 5.               | 36.9  |
| F             | 48.            | 15.3          | 25.4         |          | 44.              | 8.2   |
| M             |                |               |              |          |                  |       |
| A             |                |               |              |          |                  |       |
| M             |                |               |              |          |                  |       |
| J             | 29.            | BDL/SLD       | 11.3         | 1.1      | 29.              | 1.2   |
| J             | 58.            | 111.3         | 13.3         | 2.6      | 57.              | 2.1   |
| A             | 75.            | BDL/SLD       | 22.6         | 1.3      | 74.              | 1.2   |
| S             | 81.            | 2.9           | 4.8          | 1.0      | 81.              | 0.6   |
| O             | 12.            | 2.5           | 3.4          | 1.4      | 12.              | 3.3   |
| N             | 8.             | 2.5           | 2.8          | 2.8      | 8.               | 1.9   |
| D             | 33.            | 6.0           | 22.6         | 1.1      | 27.              | 18.7  |



STATION : FORT NELSON  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 0.            |                     |               |              |              |     |      |
| F             | 17.           | 15.                 | 3.4           | 0.8          | 0.4          | 1.0 | 6.3  |
| M             | 0.            |                     |               |              |              |     |      |
| A             | 29.           | 0.                  | 6.2           | 5.5          | 1.6          | 0.4 | 5.7  |
| M             | 30.           | 12.                 | 8.1           | 3.4          | 1.6          |     | 5.3  |
| J             | 29.           | 12.                 | 8.9           | 3.5          | 2.5          | 0.7 | 6.1  |
| J             | 31.           | 1.                  | 6.5           | 1.8          | 1.4          | 1.0 | 5.8  |
| A             | 31.           | 2.                  | 12.0          | 6.7          | 6.4          | 1.8 | 6.0  |
| S             | 30.           | 19.                 | 20.2          | 0.6          | 0.3          |     | 7.2  |
| O             | 31.           | 1.                  | 5.8           | 9.9          | 6.1          | 0.6 | 6.3  |
| N             | 30.           | 2.                  | 8.2           | 3.2          | 1.8          | 1.0 | 6.4  |
| D             | 31.           | 5.                  | DEL/ELIM      | 0.8          | 0.4          | 2.4 | 6.4  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             |             |               |               |              |               |             |
| F             | 0.5         | 0.6           | 10.5          | 10.9         | 4.1           | 1.0         |
| M             |             |               |               |              |               |             |
| A             | 2.0         | 1.1           | 25.4          | 6.5          | 5.8           | 2.0         |
| M             | 5.0         | 6.3           | 18.0          | 9.6          | 4.9           | 4.9         |
| J             | 0.8         | 14.5          | 14.5          | 9.6          | 4.1           | 7.2         |
| J             | 1.6         | 0.8           | 23.0          | 13.9         | 5.8           | 7.9         |
| A             | 1.0         | 55.2          | 26.4          | 5.7          | 4.9           | 3.8         |
| S             | 0.1         | 69.0          | 44.4          | 18.7         | 9.9           | 14.3        |
| O             | 0.5         | 5.6           | 9.0           | 14.8         | 1.6           | 9.5         |
| N             | 0.4         | 11.6          | 25.4          | 13.0         | 4.1           | 5.6         |
| D             | 0.4         | 20.6          | 39.9          | 16.5         | 8.2           | 4.1         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             |                |               |              |          |                  |       |
| F             | 6.             | 0.7           | DEL/ELIM     |          | 5.               | 20.8  |
| M             |                |               |              |          |                  |       |
| A             | 12.            | 5.0           | 11.3         | 1.2      | 12.              | 6.2   |
| M             | 27.            | 5.7           | 8.5          | 1.2      | 26.              | 4.2   |
| J             | 21.            | 4.3           | 11.3         | 1.0      | 20.              | 5.5   |
| J             | 6.             | 4.3           | 5.6          | 1.5      | 5.               | 26.7  |
| A             | 23.            | 14.3          | BDL/SLD      | 1.3      | 22.              | 3.0   |
| S             | 35.            | 17.1          | 17.8         |          | 33.              | 6.3   |
| O             | BDL/SLD        | 4.1           | 10.7         |          | BDL/SLD          |       |
| N             | 12.            | 4.6           | 11.3         | 1.2      | 11.              | 12.5  |
| D             | 21.            | 9.2           | 14.1         | 1.0      | 19.              | 9.5   |

STATION : FORT ST JOHN  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 12.                 | 11.1          | 0.9          | 0.6          |         | 5.6  |
| F             | 28.           | 1.                  | 13.1          | 1.9          | 0.8          | BDL/SLD | 5.8  |
| M             | 0.            |                     |               |              |              |         |      |
| A             | 30.           | 1.                  | 15.0          | 4.6          | 2.3          | 2.4     | 6.5  |
| M             | 32.           | 1.                  | 16.0          | 3.8          | 3.5          |         | 5.4  |
| J             | 29.           | 12.                 | 6.4           | 4.3          | 3.4          | 0.9     | 6.0  |
| J             | 31.           | 12.                 | 12.4          | 1.3          | 1.0          | 2.3     | 6.3  |
| A             | 31.           | 1.                  | 4.5           | 7.1          | 6.7          | 0.9     | 5.9  |
| S             | 30.           | 1.                  | 13.9          | 1.7          | 1.5          |         | 4.8  |
| O             | 31.           | 12.                 | 17.3          | 1.8          | 1.4          |         | 4.9  |
| N             | 30.           | 1.                  | 13.2          | 2.7          | 1.3          |         | 5.3  |
| D             | 31.           | 12.                 | 13.9          | 2.6          | 1.2          | BDL/SLD | 5.8  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 2.5         | 7.4           | 40.4          | 8.7          | 7.4           | 3.3         |
| F             | 1.6         | 1.0           | 52.4          | 19.6         | 9.0           | 3.8         |
| M             |             |               |               |              |               |             |
| A             | 0.3         | 0.2           | 90.3          | 17.4         | 17.3          | 3.8         |
| M             | 4.0         | 1.9           | 71.4          | 3.9          | 15.6          | 1.8         |
| J             | 1.0         | BDL/SLD       | 28.9          | 2.6          | 6.6           | 2.8         |
| J             | 0.5         | 0.8           | 76.3          | 4.3          | 15.6          | 4.3         |
| A             | 1.3         | 0.7           | 28.9          | 3.0          | 5.8           | BDL/SLD     |
| S             | 15.8        | 2.7           | 47.4          | 2.6          | 9.0           | 2.0         |
| O             | 12.6        | 6.1           | 55.9          | 7.4          | 13.2          | 5.6         |
| N             | 5.0         | 2.2           | 46.4          | 13.5         | 9.9           | 3.3         |
| D             | 1.6         | 1.5           | 51.9          | 25.2         | 10.7          | 11.8        |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 33.            | 19.1          | 8.5          |          | 32.              | 3.1   |
| F             | 31.            | 37.8          | 19.7         | 1.0      | 29.              | 7.5   |
| M             |                |               |              |          |                  |       |
| A             | 29.            | 14.3          | 11.3         | 1.3      | 27.              | 7.1   |
| M             | 50.            | 30.0          | 2.8          | 1.2      | 50.              | 0.9   |
| J             | 25.            | 1.4           | 5.6          | 0.8      | 25.              | 1.2   |
| J             | 29.            | 16.4          | 8.5          | 1.0      | 29.              | 1.8   |
| A             | 8.             | 4.3           | 5.6          | 1.1      | 8.               | 4.4   |
| S             | 37.            | 29.3          | 4.2          | 1.1      | 37.              | 0.8   |
| O             | 40.            | 34.5          | 3.4          | 1.3      | 39.              | 2.2   |
| N             | 25.            | 28.7          | 5.6          | 1.4      | 23.              | 6.5   |
| D             | 35.            | 19.2          | 19.7         | 1.4      | 32.              | 8.5   |



STATION : KELOWNA  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 1.                  | 13.4          | 1.6          | 1.4          |         | 5.0  |
| F             | 28.           | 15.                 | 2.9           | 4.0          | 3.4          | 0.3     | 6.2  |
| M             | 31.           | 12.                 | 9.2           | 2.8          | 2.1          |         | 5.0  |
| A             | 30.           | 13.                 | 10.4          | 3.6          | 2.7          | 1.5     | 6.6  |
| M             | 31.           | 12.                 | 6.5           | 6.0          | 4.5          | BDL/SLD | 5.1  |
| J             | 0.            |                     |               |              |              |         |      |
| J             | 25.           | 127.                | 7.5           | 4.5          | 2.5          | 0.6     | 6.1  |
| A             | 31.           | 1.                  | 12.4          | 3.8          | 1.5          | 2.9     | 6.1  |
| S             | 30.           | 1.                  | 7.6           | 5.3          | 4.3          | 0.3     | 5.7  |
| O             | 31.           | 1.                  | 7.8           | 4.1          | 3.3          | BDL/SLD | 5.3  |
| N             | 31.           | 1.                  | 8.4           | 1.6          | 1.1          | BDL/SLD | 5.6  |
| D             | 30.           | 12.                 | 11.5          | 2.7          | 2.2          |         | 5.1  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 10.0        | 29.9          | 15.0          | 5.2          | 2.5           | 1.3         |
| F             | 0.6         | 0.6           | 8.5           | 4.8          | BDL/SLD       | BDL/SLD     |
| M             | 10.0        | 21.8          | 9.0           | 2.2          | 1.6           | 0.8         |
| A             | 0.3         | 35.0          | 28.9          | 7.4          | 4.1           | 1.5         |
| M             | 7.9         | 7.0           | 11.5          | 4.8          | 2.5           | 1.0         |
| J             |             |               |               |              |               |             |
| J             | 0.8         | 0.5           | 18.0          | 10.4         | 4.1           | 21.2        |
| A             | 0.8         | 4.4           | 51.9          | 12.2         | 26.3          | 3.1         |
| S             | 2.0         | 5.4           | 16.0          | 11.7         | 4.1           | 2.0         |
| O             | 5.0         | 1.6           | 8.0           | 13.0         | 3.3           | 2.3         |
| N             | 2.5         | 16.1          | 13.0          | 4.8          | 2.5           | 1.8         |
| D             | 7.9         | 20.1          | 7.0           | 9.1          | 4.1           | 1.5         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 12.            | 22.2          | 4.8          | 1.6      | 12.              | 5.0   |
| F             | 8.             | 2.9           | DEL/ELIM     |          | 8.               | 6.9   |
| M             | 19.            | 17.1          | 8.5          | 1.0      | 18.              | 1.4   |
| A             | 19.            | BDL/SLD       | 11.3         | 1.3      | 18.              | 4.7   |
| M             | 19.            | 3.6           | 8.5          | 1.1      | 18.              | 3.1   |
| J             |                |               |              |          |                  |       |
| J             | 31.            | 2.1           | 8.5          | 1.0      | 30.              | 4.0   |
| A             | 27.            | 2.1           | 5.9          | 1.1      | 26.              | 5.4   |
| S             | 21.            | 8.6           | 9.3          | 0.9      | 19.              | 6.7   |
| O             | 8.             | 9.5           | 7.6          | 1.3      | 7.               | 18.7  |
| N             | 8.             | 15.2          | 8.5          | 1.2      | 8.               | 6.9   |
| D             | 15.            | 12.4          | 16.9         | 1.1      | 13.              | 7.5   |

STATION : PORT HARDY  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 30.           | 1.                  | 24.3          | 17.2         | 14.8         |         | 5.0  |
| F             | 29.           | 0.                  | 15.6          | 24.4         | 22.2         |         | 5.1  |
| M             | 0.            |                     |               |              |              |         |      |
| A             | 31.           | 0.                  | 15.6          | 21.2         | 18.7         |         | 5.0  |
| M             | 30.           | 0.                  | 14.4          | 8.5          | 4.8          |         | 4.7  |
| J             | 30.           | 0.                  | 11.7          | 14.3         | 10.5         | 0.6     | 5.8  |
| J             | 30.           | 0.                  | 9.7           | 3.4          | 2.8          |         | 5.0  |
| A             | 31.           | 0.                  | 7.6           | 4.8          | 4.2          |         | 4.9  |
| S             | 32.           | 0.                  | 8.8           | 19.3         | 18.6         |         | 5.3  |
| O             | 33.           | 0.                  | 17.0          | 30.4         | 26.1         | BDL/SLD | 5.0  |
| N             | 27.           | 0.                  | 16.1          | 27.0         | 19.7         |         | 5.2  |
| D             | 29.           | 0.                  | 30.6          | 17.7         | 15.0         |         | 5.1  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 10.0        | 0.5           | 7.5           | 117.9        | 24.7          | 2.8         |
| F             | 7.9         | 0.2           | 5.0           | 62.6         | 14.8          | 1.3         |
| M             |             |               |               |              |               |             |
| A             | 10.0        | 0.6           | 7.5           | 63.9         | 14.0          | 1.3         |
| M             | 20.0        | BDL/SLD       | 7.5           | 23.9         | 4.9           | 0.3         |
| J             | 1.6         | 36.0          | 8.0           | 23.1         | 5.8           | 6.4         |
| J             | 10.0        | BDL/SLD       | 8.0           | 23.1         | 5.8           | 0.8         |
| A             | 12.6        | 2.5           | 7.0           | 11.3         | 3.3           | BDL/SLD     |
| S             | 5.0         | 0.9           | 6.0           | 24.4         | 5.8           | 0.8         |
| O             | 10.0        | BDL/SLD       | 5.0           | 66.6         | 15.6          | 1.3         |
| N             | 6.3         | BDL/SLD       | 9.0           | 75.7         | 16.5          | 1.8         |
| D             | 7.9         | 4.3           | 10.5          | 149.2        | 32.1          | 3.6         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 17.            | 3.1           | 135.4        | 1.1      | 3.               | 84.7  |
| F             | 12.            | 0.7           | 70.5         | 1.1      | 5.               | 60.0  |
| M             |                |               |              |          |                  |       |
| A             | 19.            | 2.9           | 73.3         | 1.0      | 11.              | 40.8  |
| M             | BDL/SLD        | BDL/SLD       | 22.6         |          | BDL/SLD          |       |
| J             | 27.            | 3.6           | 31.0         | 1.1      | 24.              | 10.2  |
| J             | 25.            | 2.1           | 22.6         | 1.0      | 22.              | 11.0  |
| A             | 6.             | 2.1           | 16.9         | 1.5      | 5.               | 21.7  |
| S             | 6.             | 2.9           | 26.5         | 1.2      | 3.               | 46.7  |
| O             | 8.             | 2.5           | 79.5         | 1.1      | 0.               | 95.6  |
| N             | 8.             | BDL/SLD       | 87.4         | 1.1      |                  |       |
| D             | 29.            | 2.0           | 177.7        | 1.0      | 11.              | 61.2  |



STATION : PRINCE GEORGE  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 1.                  | 32.4          | 1.6          | 1.1          | 2.5     | 6.4  |
| F             | 28.           | 1.                  | 25.8          | 2.9          | 1.8          |         | 5.3  |
| M             | 31.           | 1.                  | 14.7          | 2.3          | 1.6          | 2.1     | 6.0  |
| A             | 29.           | 1.                  | 13.9          | 3.2          | 2.0          | 1.2     | 5.9  |
| M             | 31.           | 12.                 | 8.6           | 6.4          | 5.1          | BDL/SLD | 5.5  |
| J             | 30.           | 2.                  | 7.5           | 9.0          | 6.7          | BDL/SLD | 5.4  |
| J             | 30.           | 1.                  | 10.2          | 3.8          | 3.1          |         | 5.6  |
| A             | 0.            |                     |               |              |              |         |      |
| S             | 31.           | 1.                  | 39.3          | 4.2          | 3.4          | 16.7    | 6.8  |
| O             | 30.           | 1.                  | 11.9          | 4.4          | 2.5          | 1.2     | 6.6  |
| N             | 30.           | 2.                  | 11.0          | 4.0          | 3.2          |         | 5.7  |
| D             | 31.           | 1.                  | 15.4          | 4.0          | 2.1          | 1.6     | 6.2  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 0.4         | 35.3          | 117.8         | 87.4         | 6.6           | 9.7         |
| F             | 5.0         | 49.5          | 49.4          | 63.5         | 4.9           | 6.1         |
| M             | 1.0         | 27.3          | 50.4          | 25.7         | 6.6           | 5.1         |
| A             | 1.3         | 20.8          | 41.4          | 19.6         | 6.6           | 8.4         |
| M             | 3.2         | 2.9           | 19.5          | 8.7          | 4.1           | 7.7         |
| J             | 4.0         | 0.4           | 16.5          | 12.6         | 3.3           | 7.7         |
| J             | 2.5         | 8.2           | 15.0          | 28.7         | 4.1           | 15.9        |
| A             |             |               |               |              |               |             |
| S             | 0.2         | 10.8          | 252.5         | 23.9         | 101.2         | 10.2        |
| O             | 0.3         | 8.6           | 19.0          | 38.3         | 5.8           | 14.1        |
| N             | 2.0         | 7.0           | 19.0          | 39.6         | 3.3           | 4.3         |
| D             | 0.6         | 21.6          | 39.9          | 34.8         | 4.9           | 6.9         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 152.           | 11.0          | 28.8         | 1.1      | 142.             | 6.9   |
| F             | 81.            | 13.2          | 28.2         | 1.5      | 74.              | 9.4   |
| M             | 35.            | 11.4          | 19.7         | 1.1      | 32.              | 8.7   |
| A             | 31.            | 14.3          | 19.7         | 1.1      | 29.              | 7.5   |
| M             | 25.            | 4.3           | 14.1         | 1.1      | 24.              | 4.2   |
| J             | 23.            | BDL/SLD       | 16.9         | 1.1      | 21.              | 6.6   |
| J             | 27.            | 7.1           | 22.6         |          | 24.              | 12.7  |
| A             |                |               |              |          |                  |       |
| S             | 21.            | 6.4           | 15.5         | 1.1      | 18.              | 13.7  |
| O             | 12.            | 7.2           | 25.4         | 1.2      | 8.               | 36.7  |
| N             | 15.            | 4.6           | 42.3         |          | 10.              | 32.5  |
| D             | 44.            | 6.7           | 19.7         | 1.1      | 40.              | 9.5   |

STATION : REVELSTOKE  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 1.                  | 7.6           | 4.0          | 3.3          | BDL/SLD | 5.6  |
| F             | 28.           | 15.                 | 5.2           | 9.7          | 8.1          | BDL/SLD | 5.6  |
| M             | 31.           | 12.                 | 9.9           | 4.0          | 2.3          | 1.3     | 6.0  |
| A             | 30.           | 1.                  | 6.8           | 9.4          | 6.2          | BDL/SLD | 5.3  |
| M             | 31.           | 1.                  | 4.8           | 7.4          | 5.6          | 0.3     | 5.8  |
| J             | 0.            |                     |               |              |              |         |      |
| J             | 31.           | 1.                  | 6.9           | 6.9          | 5.5          | BDL/SLD | 5.5  |
| A             | 31.           | 15.                 | DEL/ELIM      | 5.4          | 4.5          | BDL/SLD | 5.5  |
| S             | 30.           | 12.                 | 7.6           | 6.7          | 5.9          | 1.0     | 6.1  |
| O             | 31.           | 0.                  | 5.3           | 12.9         | 12.0         | BDL/SLD | 5.3  |
| N             | 30.           | 1.                  | 5.9           | 5.8          | 4.2          |         | 5.3  |
| D             | 31.           | 0.                  | 5.6           | 14.9         | 13.5         |         | 5.0  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 2.5         | 3.8           | 25.9          | 32.6         | 3.3           | 6.9         |
| F             | 2.5         | 1.1           | 13.0          | 3.5          | 1.6           | 1.0         |
| M             | 1.0         | 18.3          | 34.9          | 8.3          | 4.9           | 5.1         |
| A             | 5.0         | 4.9           | 17.5          | 4.8          | 2.5           | 2.6         |
| M             | 1.6         | 6.4           | 14.5          | 1.7          | 2.5           | 2.3         |
| J             |             |               |               |              |               |             |
| J             | 3.2         | 7.9           | 17.0          | 8.7          | 2.5           | 3.8         |
| A             | 3.2         | 19.3          | 25.4          | 13.9         | 15.6          | 2.6         |
| S             | 0.8         | 11.7          | 28.4          | 7.4          | 4.1           | 3.1         |
| O             | 5.0         | 1.2           | 7.5           | 5.7          | 0.8           | 1.8         |
| N             | 5.0         | 5.5           | 5.5           | 7.4          | 0.8           | 5.6         |
| D             | 10.0        | 0.3           | 4.5           | 4.3          | 0.8           | 2.0         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 17.            | 8.1           | 8.7          | 2.2      | 13.              | 23.4  |
| F             | 10.            | 8.4           | DEL/ELIM     |          | 10.              | 4.0   |
| M             | 23.            | 17.8          | 14.1         | 0.9      | 22.              | 4.3   |
| A             | 12.            | 12.1          | 5.6          | 1.2      | 12.              | 4.6   |
| M             | 15.            | 6.4           | 5.6          | 0.9      | 14.              | 1.4   |
| J             |                |               |              |          |                  |       |
| J             | 21.            | 12.8          | 5.6          | 1.1      | 20.              | 5.0   |
| A             | 25.            | 16.4          | 5.6          | 1.7      | 23.              | 6.7   |
| S             | 10.            | 9.3           | 4.5          | 1.3      | 10.              | 8.5   |
| O             | 6.             | 6.5           | BDL/SLD      |          | 6.               | 10.8  |
| N             | 10.            | 5.9           | 5.6          | 1.4      | 10.              | 8.5   |
| D             | 12.            | BDL/SLD       | 8.5          | 1.0      | 12.              | 4.2   |



STATION : TERRACE  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 5.                  | 3.5           | 11.8         | 11.2         | 0.6     | 6.9  |
| F             | 28.           | 5.                  | 4.2           | 14.2         | 13.7         |         | 5.4  |
| M             | 31.           | 1.                  | 5.2           | 6.7          | 5.6          | BDL/SLD | 5.3  |
| A             | 29.           | 1.                  | 3.8           | 16.5         | 15.0         | 0.6     | 5.2  |
| M             | 32.           | 1.                  | 9.1           | 6.8          | 5.9          |         | 4.5  |
| J             | 30.           | 0.                  | 7.5           | 5.2          | 3.8          |         | 4.9  |
| J             | 31.           | 1.                  | 16.6          | 2.0          | 1.3          |         | 4.7  |
| A             | 31.           | 0.                  | 8.2           | 4.7          | 3.7          |         | 4.9  |
| S             | 28.           | 12.                 | 8.4           | 5.3          | 4.1          |         | 4.8  |
| O             | 33.           | 0.                  | 5.0           | 9.6          | 11.3         |         | 5.1  |
| N             | 29.           | 0.                  | 3.4           | 21.6         | 18.3         |         | 5.3  |
| D             | 28.           | 0.                  | 6.9           | 6.2          | 7.9          |         | 4.9  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 0.1         | 1.6           | 1.5           | 7.8          | BDL/SLD       | 0.3         |
| F             | 4.0         | 0.2           | 2.5           | 9.6          | 0.8           | BDL/SLD     |
| M             | 5.0         | 0.8           | 5.0           | 6.5          | 1.6           | 0.5         |
| A             | 6.3         | BDL/SLD       | 3.0           | 2.6          | BDL/SLD       | 0.3         |
| M             | 31.6        | 1.4           | 2.0           | 2.2          | 0.8           | 1.0         |
| J             | 12.6        | 1.4           | 5.5           | 5.7          | BDL/SLD       | 1.3         |
| J             | 20.0        | 0.9           | 9.0           | 13.9         | 2.5           | 2.3         |
| A             | 12.6        | 0.7           | 7.5           | 3.5          | 3.3           | 6.4         |
| S             | 15.8        | 0.4           | 10.0          | 9.6          | 2.5           | 1.0         |
| O             | 7.9         | 0.1           | 1.5           | 1.7          | BDL/SLD       | 0.3         |
| N             | 5.0         | 0.1           | 2.0           | 2.6          | BDL/SLD       | 0.5         |
| D             | 12.6        | 0.1           | 3.0           | 5.7          | 1.6           | 0.5         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 10.            | 2.1           | DEL/ELIM     |          | 9.               | 9.0   |
| F             | 6.             | BDL/SLD       | DEL/ELIM     |          | 5.               | 18.3  |
| M             | 8.             | 0.7           | 14.1         | 0.8      | 8.               | 9.4   |
| A             | 6.             | BDL/SLD       | 2.8          | 1.3      | 6.               | 5.0   |
| M             | 19.            | 0.7           | 5.6          | 1.6      | 18.              | 1.4   |
| J             | 19.            | BDL/SLD       | 5.6          | 1.1      | 18.              | 3.6   |
| J             | 37.            | 5.7           | 11.3         | 0.9      | 36.              | 4.4   |
| A             | 8.             | 5.0           | 5.6          | 1.8      | 8.               | 5.0   |
| S             | 12.            | 2.9           | 8.5          | 1.6      | 11.              | 9.2   |
| O             | BDL/SLD        | 1.0           | BDL/SLD      |          | BDL/SLD          |       |
| N             | BDL/SLD        | BDL/SLD       | 2.8          |          | BDL/SLD          |       |
| D             | 10.            | BDL/SLD       | 11.3         | 1.1      | 10.              | 6.5   |

STATION : VANCOUVER  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 31.           | 1.                  | 23.2          | 7.2          | 2.5          |     | 5.4  |
| F             | 27.           | 5.                  | DEL/ELIM      | 15.2         | 13.7         |     | 4.7  |
| M             | 31.           | 0.                  | 20.0          | 12.6         | 9.1          |     | 4.7  |
| A             | 30.           | 12.                 | 27.1          | 13.9         | 8.2          |     | 4.5  |
| M             | 31.           | 0.                  | 25.1          | 8.2          | 7.6          |     | 4.8  |
| J             | 30.           | 1.                  | 18.8          | 13.3         | 9.8          |     | 4.6  |
| J             | 32.           | 1.                  | 18.2          | 3.9          | 2.4          |     | 4.9  |
| A             | 30.           | 12.                 | 42.0          | 2.4          | 2.0          |     | 4.3  |
| S             | 30.           | 1.                  | 17.8          | 7.4          | 6.8          |     | 4.7  |
| O             | 32.           | 0.                  | 15.4          | 20.3         | 10.8         |     | 4.7  |
| N             | 31.           | 0.                  | 25.0          | 19.6         | 15.7         |     | 4.7  |
| D             | 31.           | 1.                  | 20.2          | 18.8         | 7.6          |     | 4.7  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 4.0         | 35.1          | 33.4          | 36.1         | 7.4           | 7.4         |
| F             | 20.0        | 6.4           | 12.5          | 24.4         | 5.8           | 2.0         |
| M             | 20.0        | 14.1          | 17.0          | 19.1         | 4.9           | 1.5         |
| A             | 31.6        | 9.5           | 19.5          | 43.9         | 9.9           | 1.8         |
| M             | 15.8        | 27.2          | 25.9          | 21.7         | 4.9           | 2.8         |
| J             | 25.1        | 16.6          | 14.5          | 11.7         | 3.3           | 2.3         |
| J             | 12.6        | 26.3          | 25.4          | 61.8         | 4.9           | 23.0        |
| A             | 50.1        | 39.4          | 41.9          | 23.1         | 5.8           | 7.2         |
| S             | 20.0        | 20.1          | 21.0          | 19.6         | 4.1           | 2.0         |
| O             | 20.0        | 5.9           | 7.5           | 17.8         | 4.9           | 1.0         |
| N             | 20.0        | BDL/SLD       | 15.0          | 76.6         | 15.6          | 2.6         |
| D             | 20.0        | 8.7           | 13.5          | 42.6         | 9.9           | 3.1         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 60.            | 18.7          | 42.3         | 1.0      | 56.              | 7.2   |
| F             | 29.            | 12.5          | 25.4         | 1.1      | 26.              | 10.0  |
| M             | 33.            | 16.4          | 22.6         | 1.1      | 31.              | 6.9   |
| A             | 44.            | 24.3          | 48.0         | 1.0      | 38.              | 12.0  |
| M             | 56.            | 26.4          | 28.2         | 0.9      | 54.              | 4.6   |
| J             | 40.            | 18.6          | 16.9         | 1.0      | 38.              | 3.6   |
| J             | 44.            | 24.3          | 25.4         | 1.7      | 36.              | 16.9  |
| A             | 65.            | 55.0          | 33.9         | 1.1      | 62.              | 4.3   |
| S             | 35.            | 17.1          | 25.7         | 1.1      | 33.              | 6.6   |
| O             | 19.            | 8.1           | 19.5         | 1.2      | 17.              | 11.4  |
| N             | 33.            | 6.0           | 87.4         | 1.0      | 24.              | 27.5  |
| D             | 33.            | 14.2          | 45.1         | 1.1      | 28.              | 15.3  |



STATION : CORONATION  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 19.                 | 42.7          | 0.8          | 0.6          |         | 6.3  |
| F             | 0.            |                     |               |              |              |         |      |
| M             | 0.            |                     |               |              |              |         |      |
| A             | 29.           | 1.                  | 22.9          | 1.4          | 0.3          |         | 6.2  |
| M             | 30.           | 0.                  | 24.2          | 8.0          | 6.7          | BDL/SLD | 5.5  |
| J             | 28.           | 0.                  | 15.7          | 5.2          | 2.9          | 0.3     | 5.7  |
| J             | 30.           | 13.                 | 9.1           | 5.2          | 4.4          | 0.7     | 6.4  |
| A             | 30.           | 1.                  | 13.3          | 2.2          | 1.7          |         | 4.9  |
| S             | 0.            |                     |               |              |              |         |      |
| O             | 30.           | 12.                 | 23.0          | 1.8          | 0.8          | 0.6     | 6.4  |
| N             | 0.            |                     |               |              |              |         |      |
| D             | 0.            |                     |               |              |              |         |      |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 0.5         | 78.5          | 48.4          | 137.5        | 20.6          | 29.9        |
| F             |             |               |               |              |               |             |
| M             |             |               |               |              |               |             |
| A             | 0.6         | 53.2          | 40.9          | 53.1         | 11.5          | 6.6         |
| M             | 3.2         | 20.3          | 61.4          | 10.4         | 15.6          | 3.6         |
| J             | 2.0         | 36.8          | 41.9          | 10.9         | 11.5          | 4.3         |
| J             | 0.4         | 22.6          | 19.0          | 7.4          | 4.9           | 2.6         |
| A             | 12.6        | 16.7          | 16.5          | 5.2          | 3.3           | 0.5         |
| S             |             |               |               |              |               |             |
| O             | 0.4         | 13.2          | 95.8          | 14.8         | 31.3          | 3.8         |
| N             |             |               |               |              |               |             |
| D             |             |               |               |              |               |             |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 69.            | 22.1          | 101.8        |          | 52.              | 23.9  |
| F             |                |               |              |          |                  |       |
| M             |                |               |              |          |                  |       |
| A             | 67.            | 35.0          | 36.7         |          | 60.              | 9.5   |
| M             | 50.            | 27.1          | 8.5          | 1.3      | 49.              | 2.5   |
| J             | 54.            | 27.1          | 8.5          | 1.1      | 53.              | 2.4   |
| J             | 33.            | 15.0          | 2.8          | 0.9      | 32.              | 2.7   |
| A             | 15.            | 14.3          | 2.8          | 1.7      | 14.              | 4.3   |
| S             |                |               |              |          |                  |       |
| O             | 69.            | 55.0          | 14.7         | 1.1      | 67.              | 2.6   |
| N             |                |               |              |          |                  |       |
| D             |                |               |              |          |                  |       |

STATION : EDSON

1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 19.                 | 27.8          | 0.2          | 0.2          |         | 6.9  |
| F             | 28.           | 15.                 | 12.9          | 1.2          | 0.8          | 2.8     |      |
| M             | 31.           | 1.                  | 21.3          | 0.6          | 0.4          | BDL/SLD | 6.0  |
| A             | 30.           | 1.                  | 28.4          | 1.0          | 0.5          | 5.8     | 6.9  |
| M             | 32.           | 1.                  | 12.9          | 9.8          | 8.2          | BDL/SLD | 5.4  |
| J             | 29.           | 12.                 | 9.5           | 5.2          | 3.5          | 1.1     | 7.4  |
| J             | 31.           | 12.                 | 9.1           | 9.3          | 7.2          | BDL/SLD | 5.3  |
| A             | 31.           | 123.                | 11.1          | 4.8          | 4.5          | 1.7     | 6.1  |
| S             | 30.           | 12.                 | 7.0           | 6.3          | 4.9          | 1.0     | 6.0  |
| O             | 31.           | 1.                  | 9.1           | 1.9          | 2.3          | 4.3     | 6.5  |
| N             | 30.           | 12.                 | 24.7          | 0.5          | 0.4          | 4.8     | 6.9  |
| D             | 31.           | 1.                  | 17.1          | 2.0          | 1.2          | 4.3     | 6.6  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 0.1         | 15.1          | 138.7         | 68.3         | 23.9          | 6.6         |
| F             |             | 9.6           | 56.9          | 30.9         | 10.7          | 1.8         |
| M             | 1.0         | 40.3          | 79.8          | 13.0         | 15.6          | 2.3         |
| A             | 0.1         | 21.7          | 174.2         | 10.0         | 26.3          | 2.8         |
| M             | 4.0         | 18.6          | 52.4          | 8.3          | 12.3          | 2.0         |
| J             | 0.0         | 0.6           | 46.4          | 5.2          | 9.0           | 4.3         |
| J             | 5.0         | 0.4           | 35.9          | 1.7          | 7.4           | 1.5         |
| A             | 0.8         | 0.9           | 70.4          | 10.0         | 10.7          | 1.0         |
| S             | 1.0         | 11.5          | 33.9          | 3.9          | 8.2           | 0.3         |
| O             | 0.3         | 10.1          | 41.4          | 7.4          | 8.2           | 2.0         |
| N             | 0.1         | 19.8          | 165.2         | 15.7         | 31.3          | 5.4         |
| D             | 0.3         | 12.1          | 93.8          | 13.0         | 17.3          | 4.6         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 65.            | 18.1          | 31.3         |          | 56.              | 12.7  |
| F             | 23.            | 19.2          | DEL/ELIM     |          | 19.              | 16.1  |
| M             | 75.            | 37.8          | 16.9         | 1.2      | 73.              | 2.1   |
| A             | 50.            | 20.0          | 11.3         | 1.2      | 49.              | 2.4   |
| M             | 40.            | 12.8          | 2.8          | 1.8      | 39.              | 2.5   |
| J             | 33.            | 3.6           | 8.5          | 1.0      | 33.              | 1.9   |
| J             | 33.            | 7.9           | 2.8          | 1.2      | 33.              | 0.6   |
| A             | 37.            | 6.4           | 4.8          | 1.1      | 36.              | 3.2   |
| S             | 23.            | 7.9           | 5.1          | 1.1      | 22.              | 2.0   |
| O             | 23.            | 10.2          | 4.8          | 0.6      | 22.              | 3.9   |
| N             | 69.            | 13.9          | 14.1         | 1.2      | 67.              | 2.7   |
| D             | 33.            | 19.8          | 19.7         | 0.9      | 32.              | 4.7   |



STATION : FORT MCMURRAY  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 1.                  | 11.9          | 1.0          | 0.6          | BDL/SLD | 5.5  |
| F             | 28.           | 1.                  | 16.0          | 0.6          | 0.4          | 0.4     | 6.2  |
| M             | 0.            |                     |               |              |              |         |      |
| A             | 30.           | 1.                  | 14.5          | 2.9          | 1.7          | 2.4     | 6.5  |
| M             | 0.            |                     |               |              |              |         |      |
| J             | 30.           | 12.                 | 9.4           | 3.5          | 2.4          | BDL/SLD | 5.5  |
| J             | 31.           | 2.                  | 6.9           | 12.0         | 9.7          | 0.4     | 5.8  |
| A             | 31.           | 12.                 | 14.1          | 2.8          | 2.2          | 2.5     | 6.9  |
| S             | 30.           | 12.                 | 46.1          | 1.2          | 0.7          | 0.4     | 5.7  |
| O             | 30.           | 1.                  | 28.3          | 6.3          | 3.1          | 7.4     | 7.0  |
| N             | 30.           | 12.                 | 49.6          | 1.4          | 0.8          | 5.0     | 7.1  |
| D             | 0.            |                     |               |              |              |         |      |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 3.2         | 2.4           | 20.5          | 42.2         | 9.9           | 1.5         |
| F             | 0.6         | 2.8           | 43.4          | 40.5         | 18.9          | 1.8         |
| M             |             |               |               |              |               |             |
| A             | 0.3         | 3.9           | 63.9          | 10.0         | 30.4          | 1.5         |
| M             |             |               |               |              |               |             |
| J             | 3.2         | 0.4           | 32.9          | 7.0          | 16.5          | 2.0         |
| J             | 1.6         | 0.5           | 23.5          | 11.3         | 11.5          | 1.3         |
| A             | 0.1         | 22.8          | 48.4          | 19.6         | 23.0          | 7.2         |
| S             | 2.0         | 2.0           | 192.1         | 60.9         | 83.9          | 13.3        |
| O             | 0.1         | 0.3           | 151.2         | 11.3         | 82.3          | 2.0         |
| N             | 0.1         | 20.8          | 200.6         | 62.6         | 150.6         | 4.1         |
| D             |             |               |               |              |               |             |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | CDR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 33.            | 8.7           | 18.9         | 1.3      | 28.              | 15.2  |
| F             | 48.            | 14.2          | 36.7         | 1.0      | 43.              | 10.1  |
| M             |                |               |              |          |                  |       |
| A             | 29.            | 15.0          | 11.3         | 1.1      | 28.              | 4.1   |
| M             |                |               |              |          |                  |       |
| J             | 42.            | BDL/SLD       | 8.5          | 1.2      | 41.              | 2.0   |
| J             | 31.            | 1.4           | 2.8          | 1.1      | 30.              | 4.3   |
| A             | 19.            | 13.6          | 19.7         | 1.2      | 16.              | 12.5  |
| S             | 127.           | 149.2         | 44.0         | 1.1      | 120.             | 5.7   |
| O             | 37.            | 23.8          | 5.9          | 1.1      | 36.              | 3.6   |
| N             | 171.           | 29.6          | 59.2         | 1.2      | 163.             | 4.4   |
| D             |                |               |              |          |                  |       |

STATION : LETHBRIDGE  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 1.                  | 102.0         | 2.0          | 0.6          | 21.5    | 6.7  |
| F             | 27.           | 1.                  | 52.4          | 0.8          | 0.4          | 9.3     | 6.6  |
| M             | 0.            |                     |               |              |              |         |      |
| A             | 30.           | 1.                  | 106.0         | 0.8          | 0.5          |         | 7.9  |
| M             | 31.           | 0.                  | 13.4          | 13.0         | 13.0         | 2.2     | 6.4  |
| J             | 30.           | 0.                  | 10.4          | 10.9         | 9.0          | 1.5     | 6.1  |
| J             | 31.           | 1.                  | 17.6          | 5.0          | 2.3          | 3.9     | 6.8  |
| A             | 31.           | 1.                  | 13.2          | 2.6          | 1.6          | 3.0     | 6.1  |
| S             | 30.           | 1.                  | 33.0          | 1.1          | 0.8          | BDL/SLD | 5.5  |
| O             | 31.           | 1.                  | 44.3          | 1.4          | 0.7          | 10.6    | 7.1  |
| N             | 30.           | 1.                  | 61.2          | 0.9          | 0.4          | 15.4    | 7.6  |
| D             | 31.           | 12.                 | 66.8          | 0.6          | 0.2          |         | 7.8  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 0.2         | 0.7           | 708.6         | 83.5         | 155.5         | 22.2        |
| F             | 0.3         | 22.9          | 315.4         | 27.0         | 83.1          | 7.2         |
| M             |             |               |               |              |               |             |
| A             | 0.0         | 2.0           | 588.8         | 53.1         | 193.3         | 12.3        |
| M             | 0.4         | 44.8          | 44.9          | 5.7          | 12.3          | 1.8         |
| J             | 0.8         | 12.8          | 38.4          | 10.0         | 10.7          | 1.3         |
| J             | 0.2         | 7.0           | 115.3         | 3.9          | 23.0          | 2.0         |
| A             | 0.8         | 25.0          | 65.4          | 3.9          | 18.9          | 1.8         |
| S             | 3.2         | 22.1          | 208.6         | 12.2         | 64.2          | 5.4         |
| O             | 0.1         | 27.6          | 276.4         | 6.5          | 92.1          | 5.1         |
| N             | 0.0         | 0.4           | 448.1         | 9.6          | 109.4         | 3.8         |
| D             | 0.0         | 1.4           | 540.4         | 14.8         | 74.0          | 9.5         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 233.           | 100.0         | 74.8         | 1.2      | 223.             | 4.3   |
| F             | 158.           | 41.1          | 22.6         | 1.1      | 155.             | 2.0   |
| M             |                |               |              |          |                  |       |
| A             | 208.           | 118.5         | 50.8         |          | 202.             | 3.0   |
| M             | 31.            | 13.6          | 2.8          | 1.2      | 31.              | 2.2   |
| J             | 23.            | 9.3           | BDL/SLD      | 1.2      | 22.              | 5.2   |
| J             | 48.            | 13.6          | 26.0         | 0.9      | 47.              | 1.0   |
| A             | 17.            | 15.0          | 5.6          | 1.2      | 16.              | 2.8   |
| S             | 58.            | 29.3          | 6.8          | 3.3      | 57.              | 2.5   |
| O             | 90.            | 46.5          | 5.9          | 1.2      | 89.              | 0.9   |
| N             | 44.            | 34.5          | 5.6          | 1.5      | 43.              | 2.6   |
| D             | 44.            | 30.2          | 11.3         |          | 42.              | 4.0   |



STATION : ROCKY MTN HOUSE  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 19.                 | 24.0          | 0.2          | 0.2          |         | 6.0  |
| F             | 28.           | 12.                 | 27.8          | 1.4          | 0.4          | 2.0     | 6.5  |
| M             | 0.            |                     |               |              |              |         |      |
| A             | 0.            |                     |               |              |              |         |      |
| M             | 31.           | 0.                  | 16.5          | 13.1         | 5.8          |         | 5.4  |
| J             | 30.           | 12.                 | 12.2          | 5.4          | 4.7          | BDL/SLD | 5.4  |
| J             | 31.           | 2.                  | 12.0          | 19.7         | 16.9         | 1.6     | 6.0  |
| A             | 31.           | 1.                  | 15.0          | 2.1          | 1.8          | BDL/SLD | 5.6  |
| S             | 30.           | 19.                 | 12.8          | 4.8          | 3.7          | 2.8     | 7.4  |
| O             | 31.           | 1.                  | 11.7          | 3.7          | 2.1          | 0.9     | 6.3  |
| N             | 30.           | 129.                |               | 0.3          | 0.1          |         | 4.8  |
| D             | 0.            |                     |               |              |              |         |      |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 1.0         | 1.1           | 115.3         | 43.5         | 17.3          | 3.8         |
| F             | 0.3         | 0.2           | 140.2         | 45.7         | 28.0          | 1.5         |
| M             |             |               |               |              |               |             |
| A             |             |               |               |              |               |             |
| M             | 4.0         | 2.1           | 69.9          | 24.4         | 13.2          | 1.8         |
| J             | 4.0         | BDL/SLD       | 45.9          | 3.9          | 13.2          | 3.1         |
| J             | 1.0         | 47.8          | 31.9          | 1.7          | 5.8           | 3.8         |
| A             | 2.5         | 32.5          | 94.8          | 7.0          | 18.9          | 1.5         |
| S             | 0.0         | 16.0          | 75.3          | 3.9          | 22.2          | 1.3         |
| O             | 0.5         | 11.5          | 48.9          | 12.6         | 20.6          | 5.1         |
| N             | 15.8        |               |               |              |               |             |
| D             |             |               |               |              |               |             |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 98.            | 0.9           | 47.7         |          | 93.              | 5.3   |
| F             | 133.           | 0.7           | 33.9         | 1.0      | 128.             | 4.1   |
| M             |                |               |              |          |                  |       |
| A             |                |               |              |          |                  |       |
| M             | 46.            | 7.9           | 16.9         | 1.6      | 43.              | 6.4   |
| J             | 42.            | BDL/SLD       | 5.6          | 1.5      | 41.              | 1.1   |
| J             | 42.            | 8.6           | 2.8          | 1.1      | 41.              | 0.5   |
| A             | 48.            | 22.8          | 8.5          | 2.0      | 47.              | 1.7   |
| S             |                | 12.1          |              |          |                  |       |
| O             | 19.            | 9.7           | 10.2         | 1.8      | 17.              | 8.1   |
| N             | 387.           |               | 64.9         |          |                  |       |
| D             |                |               |              |          |                  |       |

STATION : CREE LAKE  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 12.                 | 28.8          | 0.6          | 0.3          | BDL/SLD | 5.3  |
| F             | 28.           | 12.                 | 12.0          | 1.4          | 1.0          | 1.0     | 6.0  |
| M             | 31.           | 12.                 | 22.0          | 2.6          | 1.4          |         | 5.4  |
| A             | 30.           | 1.                  | 13.0          | 2.4          | 0.9          |         | 5.0  |
| M             | 31.           | 1.                  | 12.6          | 1.6          | 1.4          | 0.7     | 5.9  |
| J             | 30.           | 1.                  | 28.6          | 2.2          | 1.4          | 4.9     | 7.3  |
| J             | 31.           | 12.                 | 4.8           | 7.3          | 6.3          | BDL/SLD | 5.2  |
| A             | 31.           | 125.                | DEL/ELIM      | 2.9          | 2.3          | 0.6     | 6.3  |
| S             | 30.           | 1.                  | 15.2          | 2.0          | 1.6          | BDL/SLD | 5.8  |
| O             | 31.           | 0.                  | 7.0           | 4.3          | 3.1          |         | 5.0  |
| N             | 30.           | 0.                  | 7.3           | 1.5          | 1.0          |         | 5.2  |
| D             | 31.           | 12.                 | 16.0          | 3.4          | 0.7          | 1.1     | 6.5  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 5.0         | 1.6           | 27.9          | 98.7         | 10.7          | 51.9        |
| F             | 1.0         | 0.1           | 14.0          | 36.5         | 9.0           | 10.0        |
| M             | 4.0         | 5.6           | 17.5          | 85.7         | 5.8           | 28.9        |
| A             | 10.0        | 3.2           | 32.4          | 23.5         | 8.2           | 6.6         |
| M             | 1.3         | 24.6          | 15.5          | 45.2         | 4.1           | 18.4        |
| J             | 0.1         | BDL/SLD       | 169.2         | 20.0         | 37.8          | 28.1        |
| J             | 6.3         | BDL/SLD       | 11.5          | 2.2          | 1.6           | 0.8         |
| A             | 0.5         | 4.4           | 184.1         | 6.1          | 24.7          | 4.3         |
| S             | 1.6         | 73.2          | 22.0          | 3.9          | 4.9           | 3.1         |
| O             | 10.0        | BDL/SLD       | 8.0           | 6.5          | 2.5           | 1.5         |
| N             | 6.3         | 3.4           | 12.5          | 17.8         | 3.3           | 4.6         |
| D             | 0.3         | 1.8           | 17.0          | 79.2         | 4.9           | 20.5        |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 27.            | 68.7          | 86.0         | 1.1      | 15.              | 43.7  |
| F             | 40.            | 10.6          | 25.4         | 0.7      | 35.              | 11.1  |
| M             | 35.            | 39.3          | 73.3         | 1.0      | 25.              | 29.0  |
| A             | 33.            | 12.8          | 22.6         | 1.2      | 31.              | 8.4   |
| M             | 27.            | 10.7          | 39.5         | 1.2      | 22.              | 20.0  |
| J             | 69.            | 30.0          | 19.7         | 1.2      | 66.              | 3.5   |
| J             | 19.            | 3.6           | 2.8          | 0.9      | 18.              | 1.4   |
| A             | 44.            | 22.1          | 21.4         | 2.3      | 43.              | 1.7   |
| S             | 17.            | 10.0          | 12.7         | 2.7      | 16.              | 2.8   |
| O             | 8.             | 6.6           | 2.5          | 1.6      | 8.               | 9.4   |
| N             | 29.            | 6.0           | 16.9         | 0.9      | 27.              | 7.3   |
| D             | 12.            | 5.9           | 62.1         | 1.2      | 3.               | 75.8  |



STATION : KINDERSLEY  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK  | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|------|------|
| J             | 33.           | 1.                  | 33.3          | 1.9          | 1.5          | 9.5  | 6.4  |
| F             | 0.            |                     |               |              |              |      |      |
| M             | 0.            |                     |               |              |              |      |      |
| A             | 30.           | 1.                  | 36.7          | 2.6          | 1.7          | 14.2 | 6.8  |
| M             | 32.           | 1.                  | 82.8          | 3.4          | 3.9          | 21.1 | 6.8  |
| J             | 29.           | 1.                  | 37.3          | 4.6          | 5.4          | 8.6  | 6.2  |
| J             | 31.           | 1.                  | 12.4          | 8.1          | 7.3          | 3.0  | 6.2  |
| A             | 31.           | 1.                  | 26.1          | 2.0          | 1.5          | 6.2  | 7.8  |
| S             | 30.           | 1.                  | 20.4          | 1.8          | 2.3          | 6.1  | 6.2  |
| O             | 31.           | 1.                  | 32.4          | 1.5          | 1.1          | 10.5 | 7.2  |
| N             | 0.            |                     |               |              |              |      |      |
| D             | 0.            |                     |               |              |              |      |      |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 0.4         | 1.2           | 166.2         | 34.8         | 104.5         | 8.7         |
| F             |             |               |               |              |               |             |
| M             |             |               |               |              |               |             |
| A             | 0.2         | 12.0          | 207.6         | 17.0         | 116.0         | 3.8         |
| M             | 0.2         | 2.1           | 390.7         | 116.6        | 219.7         | 12.5        |
| J             | 0.6         | BDL/SLD       | 209.1         | 38.3         | 116.8         | 18.4        |
| J             | 0.6         | BDL/SLD       | 65.4          | 6.1          | 32.9          | 2.0         |
| A             | 0.0         | BDL/SLD       | 145.2         | 7.0          | 78.2          | 3.8         |
| S             | 0.6         | 0.6           | 110.3         | 13.5         | 60.1          | 6.1         |
| O             | 0.1         | 0.4           | 188.1         | 10.0         | 94.6          | 6.9         |
| N             |             |               |               |              |               |             |
| D             |             |               |               |              |               |             |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 44.            | 18.2          | 35.3         | 1.1      | 40.              | 9.5   |
| F             |                |               |              |          |                  |       |
| M             |                |               |              |          |                  |       |
| A             | 25.            | 14.3          | 19.7         | 1.0      | 23.              | 8.1   |
| M             | 185.           | 52.1          | 28.2         | 1.1      | 171.             | 7.5   |
| J             | 50.            | 52.1          | 11.3         | 1.3      | 45.              | 9.2   |
| J             | 27.            | 15.7          | 2.8          | 1.0      | 26.              | 2.7   |
| A             | 25.            | 53.5          | 8.5          | 1.1      | 24.              | 3.3   |
| S             | 19.            | 14.3          | 11.6         | 1.1      | 17.              | 8.6   |
| O             | 35.            | 30.8          | 10.2         | 1.0      | 34.              | 3.4   |
| N             |                |               |              |          |                  |       |
| D             |                |               |              |          |                  |       |

STATION : WYNYARD  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK  | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|------|------|
| J             | 0.            |                     |               |              |              |      |      |
| F             | 28.           | 1.                  | 43.4          | 1.3          | 0.6          | 8.8  | 6.9  |
| M             | 31.           | 1.                  | 95.3          | 2.3          | 1.1          | 30.9 | 7.9  |
| A             | 30.           | 1.                  | 35.2          | 2.3          | 1.6          | 10.4 | 6.9  |
| M             | 31.           | 1.                  | 32.8          | 2.6          | 1.6          | 8.6  | 6.8  |
| J             | 30.           | 1.                  | 14.0          | 8.9          | 4.2          | 3.6  | 6.2  |
| J             | 30.           | 1.                  | 8.9           | 13.4         | 12.3         | 2.1  | 6.7  |
| A             | 31.           | 1.                  | 6.9           | 6.7          | 6.3          | 0.9  | 5.9  |
| S             | 30.           | 1.                  | 24.2          | 5.6          | 4.9          | 5.7  | 6.3  |
| O             | 0.            |                     |               |              |              |      |      |
| N             | 0.            |                     |               |              |              |      |      |
| D             | 0.            |                     |               |              |              |      |      |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             |             |               |               |              |               |             |
| F             | 0.1         | 0.8           | 225.5         | 37.0         | 98.7          | 12.0        |
| M             | 0.0         | 22.1          | 524.5         | 33.1         | 196.6         | 10.7        |
| A             | 0.1         | 0.1           | 202.6         | 17.8         | 86.4          | 12.5        |
| M             | 0.2         | 12.9          | 184.6         | 15.2         | 88.9          | 7.9         |
| J             | 0.6         | BDL/SLD       | 77.8          | 10.0         | 32.9          | 3.3         |
| J             | 0.2         | 8.6           | 41.4          | 2.6          | 18.1          | 2.3         |
| A             | 1.3         | 2.1           | 33.9          | 3.9          | 12.3          | 1.3         |
| S             | 0.5         | 0.5           | 146.2         | 14.8         | 51.0          | 5.1         |
| O             |             |               |               |              |               |             |
| N             |             |               |               |              |               |             |
| D             |             |               |               |              |               |             |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             |                |               |              |          |                  |       |
| F             | 77.            | 60.6          | 28.2         | 1.1      | 73.              | 5.7   |
| M             | 73.            | 45.7          | 33.9         | 1.0      | 69.              | 5.4   |
| A             | 37.            | 35.0          | 14.1         | 1.1      | 35.              | 5.7   |
| M             | 54.            | 22.1          | 11.3         | 1.2      | 52.              | 3.4   |
| J             | 31.            | 6.4           | 11.3         | 1.0      | 30.              | 3.8   |
| J             | 19.            | 12.8          | 2.8          | 1.0      | 18.              | 1.7   |
| A             | 21.            | 13.6          | BDL/SLD      | 1.0      | 20.              | 2.2   |
| S             | 48.            | 3.6           | 8.2          | 1.3      | 46.              | 3.7   |
| O             |                |               |              |          |                  |       |
| N             |                |               |              |          |                  |       |
| D             |                |               |              |          |                  |       |



STATION : BISSETT  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 159.                | 32.8          | 0.6          | 0.3          |         | 4.3  |
| F             | 0.            |                     |               |              |              |         |      |
| M             | 31.           | 1.                  | 29.3          | 1.1          | 0.8          |         | 4.5  |
| A             | 30.           | 1.                  | 9.3           | 2.5          | 2.1          | 1.6     | 6.8  |
| M             | 31.           | 2.                  | 8.6           | 4.1          | 3.6          | BDL/SLD | 5.4  |
| J             | 30.           | 1.                  | 4.3           | 9.1          | 7.6          | 0.5     | 5.7  |
| J             | 31.           | 0.                  | 4.7           | 4.5          | 4.0          |         | 5.2  |
| A             | 31.           | 3.                  | 6.3           | 8.5          | 8.2          |         | 4.9  |
| S             | 30.           | 0.                  | 3.9           | 9.1          | 8.1          | 0.4     | 5.8  |
| O             | 31.           | 3.                  | 14.5          | 6.7          | 5.5          |         | 4.6  |
| N             | 30.           | 2.                  | 10.1          | 1.1          | 0.7          |         | 4.8  |
| D             | 31.           | 0.                  | 5.2           | 1.1          | 0.5          |         | 5.3  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 50.1        | 0.9           | 30.4          | 11.7         | 8.2           | 3.6         |
| F             |             |               |               |              |               |             |
| M             | 31.6        | 24.8          | 52.4          | 11.7         | 12.3          | 1.8         |
| A             | 0.2         | 0.1           | 50.4          | 6.5          | 16.5          | 1.3         |
| M             | 4.0         | 1.6           | 33.4          | 5.2          | 9.0           | 0.5         |
| J             | 2.0         | BDL/SLD       | 13.0          | 5.7          | 4.1           | 1.8         |
| J             | 6.3         | BDL/SLD       | 14.0          | 1.7          | 3.3           | BDL/SLD     |
| A             | 12.6        | 4.7           | 10.5          | 1.7          | 2.5           | BDL/SLD     |
| S             | 1.6         | BDL/SLD       | 7.0           | 2.6          | 1.6           | BDL/SLD     |
| O             | 25.1        | 6.4           | 17.5          | 2.6          | 4.9           | 0.8         |
| N             | 15.8        | BDL/SLD       | 18.0          | 3.5          | 5.8           | BDL/SLD     |
| D             | 5.0         | 0.2           | 17.5          | 3.9          | 4.1           | 0.5         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 37.            | 25.7          | DEL/ELIM     |          | 36.              | 3.7   |
| F             |                |               |              |          |                  |       |
| M             | 62.            | 45.7          | 19.7         | 1.1      | 61.              | 2.2   |
| A             | 23.            | BDL/SLD       | 5.6          | 1.2      | 22.              | 3.4   |
| M             | 37.            | 0.7           | 5.6          | 1.2      | 37.              | 1.7   |
| J             | 17.            | BDL/SLD       | 5.6          | 0.8      | 16.              | 4.1   |
| J             | 21.            | 1.4           | 2.8          | 1.0      | 21.              | 1.0   |
| A             | 4.             | 7.1           | 5.6          | 1.9      | 4.               | 5.0   |
| S             | BDL/SLD        | BDL/SLD       | 7.1          |          | BDL/SLD          |       |
| O             | 25.            | 11.3          | BDL/SLD      | 1.5      | 25.              | 1.2   |
| N             | 29.            | 3.9           | 2.8          | 1.2      | 29.              | 1.4   |
| D             | 21.            | BDL/SLD       | 2.8          | 1.3      | 20.              | 2.2   |

STATION : CHURCHILL  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK  | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|------|------|
| J             | 0.            |                     |               |              |              |      |      |
| F             | 28.           | 1.                  | 122.0         | 2.9          | 0.7          | 26.5 | 6.9  |
| M             | 31.           | 2.                  | 76.1          | 2.4          | 0.2          |      | 7.2  |
| A             | 0.            |                     |               |              |              |      |      |
| M             | 0.            |                     |               |              |              |      |      |
| J             | 0.            |                     |               |              |              |      |      |
| J             | 28.           | 0.                  | 36.7          | 5.0          | 4.0          | 13.8 | 6.4  |
| A             | 31.           | 1.                  | 56.1          | 4.3          | 3.1          | 16.3 | 6.4  |
| S             | 30.           | 1.                  | 81.9          | 5.6          | 3.9          | 15.2 | 6.6  |
| O             | 31.           | 1.                  | 69.9          | 8.1          | 4.4          | 15.4 | 7.6  |
| N             | 0.            |                     |               |              |              |      |      |
| D             | 0.            |                     |               |              |              |      |      |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             |             |               |               |              |               |             |
| F             | 0.1         | 6.5           | 339.8         | 311.0        | 344.7         | 18.2        |
| M             | 0.1         | BDL/SLD       | 295.9         | 103.5        | 253.4         | 10.5        |
| A             |             |               |               |              |               |             |
| M             |             |               |               |              |               |             |
| J             |             |               |               |              |               |             |
| J             | 0.4         | BDL/SLD       | 188.6         | 49.6         | 122.6         | 2.6         |
| A             | 0.4         | 36.6          | 280.9         | 99.2         | 107.0         | 6.9         |
| S             | 0.3         | 9.1           | 211.6         | 281.4        | 193.3         | 6.9         |
| O             | 0.0         | 8.6           | 272.0         | 149.2        | 181.8         | 5.1         |
| N             |             |               |               |              |               |             |
| D             |             |               |               |              |               |             |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             |                |               |              |          |                  |       |
| F             | 112.           | 0.7           | 372.4        | 1.0      | 75.              | 33.1  |
| M             | 65.            | BDL/SLD       | 107.2        |          | 52.              | 19.2  |
| A             |                |               |              |          |                  |       |
| M             |                |               |              |          |                  |       |
| J             |                |               |              |          |                  |       |
| J             | 21.            | 2.1           | 25.4         | 1.1      | 15.              | 28.5  |
| A             | 46.            | 12.1          | 93.1         | 1.1      | 34.              | 25.9  |
| S             | 67.            | 7.1           | 303.0        | 1.0      | 33.              | 50.5  |
| O             | 56.            | 16.1          | 168.7        | 1.1      | 38.              | 31.8  |
| N             |                |               |              |          |                  |       |
| D             |                |               |              |          |                  |       |



STATION : DAUPHIN  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK  | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|------|------|
| J             | 0.            |                     |               |              |              |      |      |
| F             | 27.           | 0.                  | 54.3          | 1.2          | 0.5          | 16.0 | 6.7  |
| M             | 31.           | 1.                  | 43.1          | 1.0          | 0.7          | 4.5  | 6.4  |
| A             | 0.            |                     |               |              |              |      |      |
| M             | 27.           | 1.                  | 19.2          | 8.1          | 6.4          | 4.0  | 6.9  |
| J             | 30.           | 1.                  | 14.6          | 9.5          | 7.0          | 3.2  | 6.0  |
| J             | 31.           | 1.                  | 14.4          | 5.4          | 4.1          | 1.8  | 6.3  |
| A             | 31.           | 1.                  | 13.9          | 5.7          | 4.5          | 2.1  | 6.2  |
| S             | 31.           | 12.                 | 10.2          | 7.9          | 9.3          | 2.2  | 6.2  |
| O             | 30.           | 1.                  | 22.2          | 2.8          | 1.9          | 0.4  | 6.4  |
| N             | 0.            |                     |               |              |              |      |      |
| D             | 0.            |                     |               |              |              |      |      |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             |             |               |               |              |               |             |
| F             | 0.2         | 16.7          | 346.3         | 15.7         | 111.1         | 6.1         |
| M             | 0.4         | 10.2          | 252.0         | 15.2         | 97.1          | 6.6         |
| A             |             |               |               |              |               |             |
| M             | 0.1         | 23.5          | 103.8         | 1.7          | 42.0          | 1.5         |
| J             | 1.0         | 0.6           | 69.9          | 3.0          | 38.7          | 1.5         |
| J             | 0.5         | 5.2           | 59.9          | 8.7          | 30.4          | 3.6         |
| A             | 0.6         | 26.1          | 47.9          | 7.0          | 21.4          | 2.8         |
| S             | 0.6         | 12.6          | 31.9          | 5.2          | 16.5          | 1.5         |
| O             | 0.4         | 5.5           | 56.9          | 5.2          | 29.6          | 3.8         |
| N             |             |               |               |              |               |             |
| D             |             |               |               |              |               |             |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             |                |               |              |          |                  |       |
| F             | 94.            | 38.5          | 14.1         | 1.1      | 92.              | 2.0   |
| M             | 60.            | 83.5          | 28.2         | 1.5      | 59.              | 3.0   |
| A             |                |               |              |          |                  |       |
| M             | 33.            | 15.0          | 2.8          | 1.3      | 33.              | 0.6   |
| J             | 23.            | 19.3          | 5.6          | 1.0      | 23.              | 1.6   |
| J             | 27.            | 35.0          | 5.6          | 1.0      | 26.              | 3.8   |
| A             | 12.            | 20.7          | 8.5          | 1.3      | 12.              | 6.7   |
| S             | 8.             | 7.1           | 4.8          | 1.1      | 8.               | 7.5   |
| O             | 62.            | 34.0          | 5.6          | 0.9      | 62.              | 1.0   |
| N             |                |               |              |          |                  |       |
| D             |                |               |              |          |                  |       |

STATION : THE PAS  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 1.                  | 16.3          | 0.6          | 0.5          | 1.7     | 5.9  |
| F             | 28.           | 15.                 | 9.9           | 1.5          | 1.0          | 1.1     | 6.4  |
| M             | 31.           | 1.                  | 16.5          | 1.7          | 1.3          | 2.7     | 6.8  |
| A             | 30.           | 1.                  | 13.0          | 3.0          | 2.2          | 2.3     | 6.5  |
| M             | 31.           | 1.                  | 40.0          | 0.8          | 0.5          | 6.9     | 6.6  |
| J             | 30.           | 0.                  | 9.0           | 6.9          | 4.1          | 2.0     | 6.1  |
| J             | 31.           | 0.                  | 8.1           | 9.8          | 7.5          | BDL/SLD | 6.0  |
| A             | 31.           | 1.                  | 11.5          | 4.2          | 3.4          | 2.0     | 5.9  |
| S             | 30.           | 0.                  | 6.7           | 8.1          | 6.7          | 0.6     | 6.0  |
| O             | 31.           | 0.                  | 9.2           | 11.8         | 11.8         | 0.2     | 5.8  |
| N             | 30.           | 12.                 | 23.4          | 0.8          | 0.3          | BDL/SLD | 5.3  |
| D             | 31.           | 1.                  | 14.3          | 3.5          | 1.9          | 3.5     | 6.6  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 1.3         | 7.9           | 44.4          | 39.6         | 18.1          | 3.1         |
| F             | 0.4         | 12.5          | 27.4          | 20.0         | 13.2          | 3.6         |
| M             | 0.2         | 38.3          | 46.4          | 17.4         | 32.1          | 1.8         |
| A             | 0.3         | 13.0          | 53.4          | 7.4          | 22.2          | 2.8         |
| M             | 0.3         | 5.4           | 195.1         | 19.1         | 116.0         | 7.7         |
| J             | 0.8         | 5.7           | 33.9          | 16.1         | 23.0          | 6.1         |
| J             | 1.0         | 7.6           | 29.9          | 4.8          | 19.7          | 1.5         |
| A             | 1.3         | 18.9          | 40.4          | 9.1          | 23.0          | 4.6         |
| S             | 1.0         | 9.2           | 21.0          | 5.7          | 10.7          | 1.0         |
| O             | 1.6         | 19.8          | 15.5          | 7.8          | 9.9           | 1.5         |
| N             | 5.0         | 0.6           | 55.9          | 43.9         | 37.0          | 11.0        |
| D             | 0.3         | 12.0          | 71.4          | 15.7         | 45.2          | 4.9         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 35.            | 18.0          | 27.6         | 1.0      | 31.              | 13.4  |
| F             | 23.            | 14.6          | DEL/ELIM     |          | 21.              | 10.5  |
| M             | 40.            | 20.7          | 14.1         | 1.1      | 37.              | 5.3   |
| A             | 17.            | 13.6          | 2.8          | 1.3      | 16.              | 5.3   |
| M             | 100.           | 69.2          | 8.5          | 1.1      | 98.              | 2.3   |
| J             | 23.            | 5.7           | 5.6          | 1.2      | 21.              | 8.4   |
| J             | 21.            | 12.8          | 2.8          | 1.7      | 20.              | 2.7   |
| A             | 17.            | 15.0          | 8.5          | 1.2      | 16.              | 6.6   |
| S             | 12.            | 7.9           | 3.1          | 1.4      | 12.              | 5.4   |
| O             | 33.            | 15.3          | 1.7          | 1.0      | 32.              | 2.8   |
| N             | 65.            | 42.4          | 39.5         | 1.0      | 59.              | 8.1   |
| D             | 25.            | 16.7          | 16.9         | 1.2      | 23.              | 7.5   |



STATION : ATIKOKAN  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 129.                | 30.1          | 0.7          | 0.2          |         | 5.0  |
| F             | 28.           | 5.                  | 12.9          | 3.8          | 3.1          |         | 4.8  |
| M             | 31.           | 12.                 | 30.2          | 2.7          | 1.9          |         | 4.6  |
| A             | 30.           | 1.                  | 11.9          | 6.5          | 8.5          |         | 5.5  |
| M             | 31.           | 123.                | 14.2          | 7.1          | 6.1          | BDL/SLD | 5.4  |
| J             | 30.           | 23.                 | 9.8           | 14.2         | 13.0         |         | 5.1  |
| J             | 31.           | 1.                  | 12.2          | 4.0          | 3.6          |         | 4.9  |
| A             | 31.           | 1.                  | 6.1           | 2.0          | 1.8          |         | 5.2  |
| S             | 30.           | 12.                 | 11.7          | 3.7          | 3.0          |         | 4.7  |
| O             | 31.           | 1.                  | 10.7          | 8.9          | 9.3          |         | 4.7  |
| N             | 30.           | 12.                 | 19.5          | 2.2          | 1.9          |         | 4.6  |
| D             | 32.           | 1.                  | 16.0          | 3.1          | 1.4          |         | 4.6  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 10.0        | 53.6          | 41.9          | 90.9         | 10.7          | 6.1         |
| F             | 15.8        | 14.3          | 7.0           | 5.2          | 1.6           | 1.3         |
| M             | 25.1        | 87.1          | 36.9          | 13.5         | 7.4           | 2.3         |
| A             | 3.2         | 21.6          | 37.4          | 6.5          | 8.2           | 1.5         |
| M             | 4.0         | 33.6          | 46.9          | 8.7          | 12.3          | 2.6         |
| J             | 7.9         | 17.3          | 16.0          | 2.2          | 4.9           | 1.8         |
| J             | 12.6        | 1.1           | 21.5          | 9.6          | 5.8           | 1.8         |
| A             | 6.3         | 8.5           | 10.5          | 4.8          | 3.3           | 1.5         |
| S             | 20.0        | 13.6          | 12.0          | 7.8          | 4.1           | 1.8         |
| O             | 20.0        | 8.3           | 14.0          | 3.9          | 3.3           | 1.5         |
| N             | 25.1        | 22.2          | 32.9          | 15.2         | 7.4           | 10.0        |
| D             | 25.1        | 15.3          | 15.0          | 7.4          | 4.9           | 3.8         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 79.            | 51.5          | 58.1         | 1.1      | 68.              | 13.7  |
| F             | 19.            | 24.2          | DEL/ELIM     |          | 18.              | 3.3   |
| M             | 87.            | 42.8          | 19.7         | 1.1      | 86.              | 1.8   |
| A             | 40.            | 25.0          | 5.6          | 1.1      | 39.              | 2.0   |
| M             | 42.            | 27.8          | 11.3         | 1.3      | 41.              | 2.5   |
| J             | 31.            | 11.4          | 2.8          | 1.1      | 31.              | 0.8   |
| J             | 37.            | 13.6          | 5.6          | 0.9      | 36.              | 3.1   |
| A             | 10.            | 7.9           | 5.6          | 1.5      | 10.              | 5.5   |
| S             | 19.            | 12.1          | 8.7          | 1.5      | 18.              | 5.0   |
| O             | 67.            | 9.9           | 2.3          | 0.6      | 66.              | 0.7   |
| N             | 35.            | 38.8          | 19.7         | 1.2      | 34.              | 5.1   |
| D             | 19.            | 35.0          | 11.3         | 1.1      | 18.              | 4.7   |

STATION : DORSET  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 31.           | 1.                  | 52.0          | 2.9          | 1.1          |     | 4.1  |
| F             | 28.           | 1.                  | 27.9          | 10.7         | 6.6          |     | 4.3  |
| M             | 32.           | 12.                 | 43.1          | 6.0          | 2.6          |     | 4.2  |
| A             | 30.           | 1.                  | 39.4          | 8.5          | 6.4          |     | 4.3  |
| M             | 32.           | 1.                  | 56.0          | 7.2          | 5.3          |     | 4.6  |
| J             | 30.           | 12.                 | 35.3          | 9.1          | 6.3          |     | 4.2  |
| J             | 31.           | 0.                  | 52.8          | 3.2          | 2.1          |     | 4.0  |
| A             | 30.           | 1.                  | 58.3          | 11.8         | 10.5         |     | 3.9  |
| S             | 30.           | 0.                  | 40.8          | 15.4         | 14.7         |     | 4.1  |
| O             | 31.           | 2.                  | 20.1          | 7.8          | 6.2          |     | 4.2  |
| N             | 30.           | 0.                  | 22.1          | 6.4          | 5.4          |     | 4.3  |
| D             | 29.           | 1.                  | 33.4          | 4.5          | 3.9          |     | 4.2  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 79.4        | 21.8          | 104.8         | 5.2          | 4.9           | 2.0         |
| F             | 50.1        | 8.2           | 20.0          | 7.4          | 3.3           | 0.5         |
| M             | 63.1        | 46.0          | 26.4          | 7.8          | 7.4           | 1.8         |
| A             | 50.1        | 47.2          | 47.4          | 9.1          | 9.0           | 2.6         |
| M             | 25.1        | 40.2          | 20.5          | 3.0          | 5.8           | 1.8         |
| J             | 63.1        | 38.5          | 25.9          | 10.9         | 7.4           | 1.8         |
| J             | 100.0       | 25.5          | 15.5          | 4.3          | 4.1           | 1.3         |
| A             | 125.9       | 29.9          | 11.0          | 2.6          | 1.6           | 0.5         |
| S             | 79.4        | 31.9          | 12.5          | 1.7          | 4.1           | 1.5         |
| O             | 63.1        | 7.8           | 4.5           | 0.4          | 1.6           | 0.5         |
| N             | 50.1        | BDL/SLD       | 8.0           | 6.5          | 2.5           | 1.3         |
| D             | 63.1        | 16.6          | 8.5           | 2.6          | 2.5           | 1.3         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 146.           | 56.4          | 6.2          | 1.0      | 145.             | 0.4   |
| F             | 48.            | 30.7          | 14.1         | 1.0      | 47.              | 1.8   |
| M             | 96.            | 52.1          | 19.7         | 0.9      | 95.              | 1.0   |
| A             | 96.            | 57.8          | 8.5          | 1.0      | 95.              | 1.1   |
| M             | 108.           | 47.1          | 8.5          | 0.6      | 108.             | 0.3   |
| J             | 77.            | 34.3          | 5.6          | 1.3      | 76.              | 1.7   |
| J             | 102.           | 38.5          | BDL/SLD      | 1.1      | 101.             | 0.5   |
| A             | 87.            | 37.8          | 5.6          | 1.3      | 87.              | 0.4   |
| S             | 81.            | 35.7          | 3.7          | 1.1      | 81.              | 0.3   |
| O             | 50.            | 25.5          | 2.3          | 1.0      | 50.              | 0.1   |
| N             | 42.            | 18.8          | 2.8          | 1.1      | 41.              | 1.9   |
| D             | 35.            | 58.0          | 11.3         | 0.9      | 35.              | 0.9   |



STATION : ELA  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 19.                 | 9.5           | 0.2          | 0.3          |         | 5.7  |
| F             | 28.           | 15.                 | 13.1          | 0.8          | 0.7          | 0.7     | 5.7  |
| M             | 31.           | 1.                  | 17.6          | 1.5          | 1.2          | 1.5     | 6.8  |
| A             | 30.           | 1.                  | 17.4          | 2.1          | 2.5          | 1.2     | 6.5  |
| M             | 31.           | 12.                 | 28.7          | 1.9          | 1.6          |         | 4.7  |
| J             | 30.           | 12.                 | 6.4           | 15.7         | 16.1         | BDL/SLD | 5.7  |
| J             | 31.           | 0.                  | 6.5           | 10.8         | 10.1         | 0.2     | 6.2  |
| A             | 31.           | 2.                  | 8.0           | 2.4          | 2.6          |         | 5.0  |
| S             | 31.           | 2.                  | 8.4           | 16.4         | 16.3         |         | 5.0  |
| O             | 30.           | 1.                  | 17.6          | 5.3          | 3.4          |         | 4.5  |
| N             | 30.           | 12.                 | 18.6          | 2.9          | 2.1          |         | 4.5  |
| D             | 31.           | 1.                  | 12.4          | 8.3          | 2.3          |         | 4.5  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 2.0         | 1.8           | 12.0          | 38.3         | 2.5           | 5.4         |
| F             | 2.0         | 14.5          | 31.9          | 29.1         | 6.6           | 3.3         |
| M             | 0.2         | 65.2          | 25.9          | 10.4         | 6.6           | 3.8         |
| A             | 0.3         | 46.4          | 53.4          | 7.4          | 14.0          | 3.3         |
| M             | 20.0        | 45.0          | 55.9          | 13.5         | 15.6          | 8.4         |
| J             | 2.0         | 15.0          | 10.0          | 1.7          | 2.5           | 1.3         |
| J             | 0.6         | 16.8          | 4.5           | 2.6          | 1.6           | 0.8         |
| A             | 10.0        | 3.6           | 6.5           | 2.2          | 1.6           | 0.8         |
| S             | 10.0        | 11.1          | 5.0           | 3.9          | 0.8           | 0.8         |
| O             | 31.6        | 18.0          | 6.5           | 3.9          | 1.6           | 1.5         |
| N             | 31.6        | 30.0          | 9.0           | 3.9          | 2.5           | 2.6         |
| D             | 31.6        | 9.1           | 6.0           | 3.9          | 1.6           | 1.8         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 27.            | 6.9           | 22.0         |          | 22.              | 16.9  |
| F             | 29.            | 40.6          | DEL/ELIM     |          | 26.              | 12.0  |
| M             | 54.            | 42.1          | 19.7         | 0.8      | 53.              | 2.3   |
| A             | 42.            | 38.5          | 5.6          | 1.1      | 41.              | 2.1   |
| M             | 58.            | 32.8          | 16.9         | 1.5      | 57.              | 2.8   |
| J             | 19.            | 8.6           | 5.6          | 1.0      | 19.              | 1.1   |
| J             | 17.            | 9.3           | 11.3         | 0.7      | 16.              | 1.9   |
| A             | 4.             | 7.1           | 2.8          | 1.7      | 4.               | 6.2   |
| S             | 8.             | 6.4           | 7.1          | 1.4      | 8.               | 5.6   |
| O             | 33.            | 20.8          | BDL/SLD      | 1.2      | 33.              | 1.4   |
| N             | 29.            | 25.3          | BDL/SLD      | 1.4      | 29.              | 1.6   |
| D             | 15.            | 20.1          | 11.3         | 1.2      | 14.              | 3.2   |

STATION : HARROW  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 31.           | 1.                  | 46.3          | 1.2          | 1.5          | 1.3 | 5.8  |
| F             | 26.           | 5.                  | 19.2          | 5.9          | 5.6          |     | 4.8  |
| M             | 30.           | 1.                  | 62.5          | 2.3          | 1.6          |     | 4.8  |
| A             | 29.           | 0.                  | 36.7          | 12.2         | 11.3         |     | 4.4  |
| M             | 30.           | 0.                  | 65.1          | 7.4          | 5.4          |     | 4.6  |
| J             | 29.           | 1.                  | 39.3          | 12.2         | 11.3         |     | 4.2  |
| J             | 27.           | 5.                  | DEL/ELIM      | 27.0         | 15.2         |     | 3.9  |
| A             | 30.           | 0.                  | 85.4          | 4.2          | 3.5          |     | 3.8  |
| S             | 29.           | 0.                  | 42.2          | 17.3         | 15.8         |     | 4.1  |
| O             | 30.           | 0.                  | 33.4          | 9.2          | 8.1          |     | 4.2  |
| N             | 29.           | 1.                  | 43.4          | 3.5          | 2.3          |     | 4.1  |
| D             | 30.           | 0.                  | 16.9          | 3.5          | 4.0          |     | 5.4  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 1.6         | 30.9          | 173.7         | 42.2         | 106.1         | 3.6         |
| F             | 15.8        | 5.0           | 43.9          | 14.8         | 23.9          | 1.5         |
| M             | 15.8        | 76.2          | 241.0         | 35.2         | 105.3         | 1.5         |
| A             | 39.8        | 24.3          | 54.9          | 6.1          | 27.1          | 0.8         |
| M             | 25.1        | 39.8          | 70.4          | 2.6          | 37.8          | 1.3         |
| J             | 63.1        | 32.0          | 35.9          | 3.9          | 16.5          | 0.5         |
| J             | 125.9       | 28.9          | 16.5          | 3.5          | 7.4           | 0.3         |
| A             | 158.5       | 30.5          | 56.9          | 2.6          | 27.1          | 0.5         |
| S             | 79.4        | 18.4          | 20.0          | 2.2          | 7.4           | 0.5         |
| O             | 63.1        | 3.1           | 16.5          | 0.4          | 7.4           | BDL/SLD     |
| N             | 79.4        | 18.6          | 34.9          | 7.4          | 14.0          | 2.8         |
| D             | 4.0         | 0.3           | 72.9          | 4.3          | 36.2          | 0.3         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 164.           | 86.4          | 49.6         | 1.1      | 159.             | 3.1   |
| F             | 60.            | 37.0          | DEL/ELIM     |          | 59.              | 2.9   |
| M             | 208.           | 97.1          | 56.4         | 1.3      | 204.             | 2.0   |
| A             | 90.            | 51.4          | 5.6          | 1.0      | 89.              | 0.8   |
| M             | 162.           | 67.1          | 11.3         | 0.7      | 162.             | 0.2   |
| J             | 87.            | 40.0          | 5.6          | 1.1      | 87.              | 0.5   |
| J             | 127.           | 42.8          | 14.1         | 1.0      | 127.             | 0.3   |
| A             | 156.           | 74.2          | 14.1         | 1.1      | 156.             | 0.2   |
| S             | 75.            | 37.8          | 5.9          | 1.1      | 75.              | 0.3   |
| O             | 52.            | 28.7          | BDL/SLD      | 1.1      | 52.              | 0.1   |
| N             | 90.            | 36.6          | 5.6          | 1.2      | 89.              | 1.0   |
| D             | 73.            | BDL/SLD       | 11.3         | 1.4      | 72.              | 0.7   |



STATION : KAPUSKASING  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 0.            |                     |               |              |              |         |      |
| F             | 27.           | 15.                 | 27.3          | 6.2          | 3.7          |         | 4.6  |
| M             | 0.            |                     |               |              |              |         |      |
| A             | 30.           | 0.                  | 13.4          | 10.8         | 2.4          | BDL/SLD | 5.3  |
| M             | 30.           | 1.                  | 12.6          | 9.3          | 7.5          |         | 5.1  |
| J             | 30.           | 1.                  | 26.0          | 10.0         | 7.5          |         | 4.4  |
| J             | 31.           | 12.                 | 31.3          | 2.3          | 1.2          | 4.4     | 6.6  |
| A             | 31.           | 1.                  | 12.4          | 6.2          | 4.1          | 0.8     | 6.6  |
| S             | 30.           | 0.                  | 12.2          | 8.7          | 6.9          |         | 4.8  |
| O             | 31.           | 2.                  | 9.9           | 7.4          | 5.3          | BDL/SLD | 5.7  |
| N             | 30.           | 12.                 | 13.9          | 5.2          | 2.4          | 0.7     | 6.2  |
| D             | 0.            |                     |               |              |              |         |      |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             |             |               |               |              |               |             |
| F             | 25.1        | 72.1          | 28.4          | 3.5          | 4.9           | 1.3         |
| M             |             |               |               |              |               |             |
| A             | 5.0         | 17.3          | 42.9          | 2.6          | 6.6           | 0.8         |
| M             | 7.9         | 10.6          | 28.9          | BDL/SLD      | 6.6           | 0.3         |
| J             | 39.8        | 0.4           | 34.4          | 1.7          | 7.4           | 1.0         |
| J             | 0.3         | 64.3          | 137.2         | 19.6         | 33.7          | 7.7         |
| A             | 0.3         | 31.5          | 50.9          | 24.4         | 10.7          | 0.8         |
| S             | 15.8        | BDL/SLD       | 19.0          | 1.7          | 4.1           | BDL/SLD     |
| O             | 2.0         | 0.4           | 52.4          | 1.3          | 5.8           | BDL/SLD     |
| N             | 0.6         | 8.9           | 59.4          | 7.8          | 15.6          | 5.6         |
| D             |             |               |               |              |               |             |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             |                |               |              |          |                  |       |
| F             | 81.            | 50.6          | DEL/ELIM     |          | 81.              | 0.5   |
| M             |                |               |              |          |                  |       |
| A             | 35.            | 20.0          | 2.8          | 1.3      | 35.              | 0.9   |
| M             | 35.            | 10.0          | 2.8          | 1.1      | 35.              | 0.1   |
| J             | 65.            | 10.7          | 5.6          | 1.0      | 64.              | 0.3   |
| J             | 98.            | 31.4          | 16.9         | 1.1      | 96.              | 2.4   |
| A             | 50.            | 17.1          | 16.9         | 1.2      | 47.              | 5.8   |
| S             | 27.            | BDL/SLD       | 3.4          | 1.3      | 27.              | 0.8   |
| O             | 37.            | 0.6           | BDL/SLD      | 1.6      | 37.              | 0.4   |
| N             | 52.            | 11.7          | 5.6          | 1.2      | 51.              | 1.8   |
| D             |                |               |              |          |                  |       |

STATION : KINGSTON  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 31.           | 1.                  | 41.7          | 2.4          | 0.7          |     | 5.2  |
| F             | 28.           | 1.                  | 28.7          | 13.2         | 9.6          |     | 4.4  |
| M             | 31.           | 1.                  | 38.5          | 3.1          | 1.4          |     | 4.8  |
| A             | 30.           | 3.                  | 51.7          | 7.7          | 5.7          |     | 4.2  |
| M             | 31.           | 12.                 | 44.3          | 8.9          | 7.5          |     | 4.3  |
| J             | 30.           | 12.                 | 69.0          | 7.1          | 5.5          |     | 3.9  |
| J             | 31.           | 0.                  | 49.0          | 7.5          | 7.1          |     | 4.1  |
| A             | 31.           | 0.                  | 59.3          | 10.8         | 9.2          |     | 3.9  |
| S             | 30.           | 1.                  | 61.1          | 18.0         | 15.5         |     | 3.9  |
| O             | 31.           | 0.                  | 44.5          | 9.1          | 6.9          |     | 4.0  |
| N             | 30.           | 1.                  | 70.5          | 5.6          | 4.2          |     | 3.8  |
| D             | 31.           | 1.                  | 49.6          | 4.9          | 2.7          |     | 4.0  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 6.3         | 73.4          | 125.2         | 67.9         | 18.1          | 3.8         |
| F             | 39.8        | 10.8          | 23.5          | 12.2         | 5.8           | 1.8         |
| M             | 15.8        | 39.8          | 140.7         | 17.8         | 23.0          | 2.6         |
| A             | 63.1        | 48.5          | 59.4          | 8.7          | 10.7          | 2.6         |
| M             | 50.1        | 47.4          | 30.9          | 6.5          | 4.9           | 1.8         |
| J             | 125.9       | 51.7          | 34.9          | 5.2          | 8.2           | 2.0         |
| J             | 79.4        | 12.4          | 25.9          | 6.1          | 4.9           | 1.5         |
| A             | 125.9       | 6.6           | 18.0          | 6.5          | 3.3           | 0.8         |
| S             | 125.9       | 7.2           | 22.0          | 5.2          | 5.8           | 0.8         |
| O             | 100.0       | 0.5           | 21.0          | 3.5          | 3.3           | 0.3         |
| N             | 158.5       | 1.2           | 25.9          | 3.9          | 4.1           | 1.0         |
| D             | 100.0       | 0.6           | 46.4          | 7.8          | 8.2           | 3.1         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 69.            | 120.0         | 59.8         | 1.2      | 61.              | 11.8  |
| F             | 44.            | 42.5          | 14.1         | 0.9      | 42.              | 3.3   |
| M             | 129.           | 79.9          | 33.9         | 1.0      | 127.             | 1.7   |
| A             | 117.           | 74.2          | 8.5          | 1.0      | 116.             | 0.9   |
| M             | 87.            | 47.1          | 8.5          | 1.0      | 87.              | 0.9   |
| J             | 135.           | 68.5          | 11.3         | 1.1      | 135.             | 0.5   |
| J             | 85.            | 50.7          | 11.3         | 0.9      | 85.              | 0.9   |
| A             | 94.            | 50.0          | 16.9         | 1.0      | 93.              | 0.8   |
| S             | 87.            | 67.1          | 8.5          | 1.0      | 87.              | 0.7   |
| O             | 58.            | 60.7          | BDL/SLD      | 1.1      | 58.              | 0.7   |
| N             | 75.            | 99.9          | 2.8          | 1.1      | 74.              | 0.6   |
| D             | 60.            | 85.7          | 11.3         | 1.1      | 59.              | 1.6   |



STATION : MOOSONEE  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 32.           | 12.                 | 18.0          | 2.6          | 0.8          | 1.1     | 6.1  |
| F             | 29.           | 1.                  | 20.4          | 3.3          | 2.1          |         | 5.1  |
| M             | 30.           | 12.                 | 22.4          | 1.8          | 0.7          |         | 4.6  |
| A             | 30.           | 0.                  | 11.7          | 4.9          | 2.5          | 1.7     | 6.5  |
| M             | 32.           | 1.                  | 14.0          | 2.4          | 1.4          | 1.3     | 6.4  |
| J             | 29.           | 12.                 | 13.3          | 5.7          | 4.8          | BDL/SLD | 5.2  |
| J             | 32.           | 1.                  | 7.3           | 5.4          | 4.4          | 0.8     | 5.9  |
| A             | 31.           | 1.                  | 9.5           | 3.0          | 2.4          | 1.8     | 6.4  |
| S             | 30.           | 0.                  | 9.8           | 12.0         | 10.0         | BDL/SLD | 5.6  |
| O             | 31.           | 1.                  | 23.4          | 6.4          | 4.7          |         | 4.8  |
| N             | 29.           | 12.                 | 10.4          | 5.2          | 3.2          | BDL/SLD | 5.5  |
| D             | 35.           | 1.                  | 16.1          | 4.9          | 1.7          |         | 4.6  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 0.8         | 34.3          | 38.4          | 23.5         | 10.7          | 12.0        |
| F             | 7.9         | 21.9          | 46.4          | 17.4         | 10.7          | 8.2         |
| M             | 25.1        | 22.2          | 63.9          | 11.7         | 10.7          | 1.5         |
| A             | 0.3         | 0.5           | 62.4          | 8.7          | 13.2          | BDL/SLD     |
| M             | 0.4         | 4.0           | 71.9          | 9.1          | 16.5          | 2.3         |
| J             | 6.3         | 6.9           | 38.4          | 5.2          | 9.9           | 1.8         |
| J             | 1.3         | BDL/SLD       | 30.4          | 6.1          | 7.4           | 1.3         |
| A             | 0.4         | 2.4           | 57.4          | 8.7          | 12.3          | 1.8         |
| S             | 2.5         | BDL/SLD       | 15.0          | 10.0         | 4.1           | 2.8         |
| O             | 15.8        | 0.4           | 17.0          | 70.9         | 16.5          | 4.1         |
| N             | 3.2         | 0.4           | 33.4          | 17.4         | 8.2           | 3.1         |
| D             | 25.1        | BDL/SLD       | 13.5          | 15.7         | 7.4           | 2.0         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 29.            | 26.1          | 27.9         | 1.1      | 26.              | 9.6   |
| F             | 56.            | 34.8          | 16.9         | 1.0      | 54.              | 3.7   |
| M             | 79.            | 17.8          | 28.2         | 1.1      | 78.              | 1.8   |
| A             | 29.            | BDL/SLD       | 8.5          | 1.2      | 28.              | 3.6   |
| M             | 56.            | 0.4           | 16.9         | 1.0      | 55.              | 1.9   |
| J             | 44.            | 11.4          | 11.3         | 1.0      | 43.              | 1.4   |
| J             | 21.            | 0.7           | 11.3         | 1.0      | 20.              | 3.5   |
| A             | 29.            | 1.4           | 16.9         | 1.0      | 28.              | 3.6   |
| S             | BDL/SLD        | 5.0           | 12.4         |          | BDL/SLD          |       |
| O             | 35.            | 5.3           | 82.7         | 1.0      | 27.              | 24.0  |
| N             | 29.            | BDL/SLD       | 19.7         | 1.3      | 27.              | 7.1   |
| D             | 19.            | 24.1          | 16.4         | 1.1      | 17.              | 10.0  |

STATION : MOUNT FOREST  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 0.            |                     |               |              |              |     |      |
| F             | 29.           | 1.                  | 39.0          | 7.5          | 4.3          |     | 4.6  |
| M             | 29.           | 1.                  | 36.7          | 5.0          | 3.1          |     | 5.5  |
| A             | 30.           | 1.                  | 33.5          | 5.7          | 3.6          | 3.1 | 6.5  |
| M             | 31.           | 0.                  | 40.7          | 8.8          | 7.7          |     | 4.3  |
| J             | 30.           | 1.                  | 20.8          | 7.7          | 6.5          |     | 4.7  |
| J             | 31.           | 1.                  | 31.3          | 5.1          | 4.7          |     | 4.3  |
| A             | 31.           | 0.                  | 65.0          | 17.3         | 16.0         |     | 3.9  |
| S             | 29.           | 1.                  | 26.3          | 9.2          | 7.8          |     | 4.3  |
| O             | 32.           | 0.                  | 18.9          | 11.0         | 8.8          |     | 4.6  |
| N             | 30.           | 0.                  | 22.3          | 7.0          | 5.2          |     | 4.7  |
| D             | 31.           | 1.                  | 37.7          | 4.1          | 2.1          |     | 4.5  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             |             |               |               |              |               |             |
| F             | 25.1        | 61.6          | 49.4          | 43.5         | 26.3          | 1.8         |
| M             | 3.2         | 70.9          | 125.2         | 24.8         | 79.8          | 1.0         |
| A             | 0.3         | 58.5          | 131.2         | 6.5          | 77.3          | 1.5         |
| M             | 50.1        | 47.5          | 49.9          | 1.7          | 26.3          | 0.8         |
| J             | 20.0        | 42.9          | 25.9          | 1.7          | 12.3          | 1.0         |
| J             | 50.1        | 31.3          | 17.0          | 0.9          | 8.2           | 1.5         |
| A             | 125.9       | 31.7          | 9.5           | 10.0         | 1.6           | 1.5         |
| S             | 50.1        | 35.2          | 19.5          | 1.7          | 6.6           | 1.0         |
| O             | 25.1        | 26.4          | 9.5           | 1.3          | 4.1           | 0.5         |
| N             | 20.0        | 35.9          | 25.9          | 3.9          | 14.0          | 1.0         |
| D             | 31.6        | 56.7          | 57.4          | 38.3         | 30.4          | 1.8         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             |                |               |              |          |                  |       |
| F             | 92.            | 80.7          | 39.5         | 1.0      | 86.              | 5.7   |
| M             | 104.           | 57.8          | 31.0         | 1.6      | 101.             | 2.8   |
| A             | 104.           | 66.4          | 8.5          | 1.1      | 103.             | 0.7   |
| M             | 115.           | 51.4          | 5.6          | 1.0      | 114.             | 0.2   |
| J             | 62.            | 28.6          | 8.5          | 1.0      | 62.              | 0.3   |
| J             | 71.            | 31.4          | 2.8          | 1.0      | 71.              | 0.1   |
| A             | 121.           | 39.3          | BDL/SLD      | 1.1      | 120.             | 1.0   |
| S             | 87.            | 27.1          | 4.2          | 1.0      | 87.              | 0.2   |
| O             | 48.            | 19.3          | BDL/SLD      | 1.0      | 48.              | 0.3   |
| N             | 58.            | 26.7          | 2.8          | 1.1      | 58.              | 0.8   |
| D             | 87.            | 74.9          | 36.7         | 1.1      | 83.              | 5.2   |



STATION : PETERBOROUGH  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 31.           | 1.                  | 18.1          | 1.7          | 0.6          |     | 5.0  |
| F             | 28.           | 5.                  | 23.7          | 13.5         | 11.6         |     | 4.5  |
| M             | 31.           | 1.                  | 34.8          | 2.3          | 1.5          | 2.0 | 6.2  |
| A             | 30.           | 1.                  | 31.2          | 4.7          | 3.5          | 1.3 | 6.1  |
| M             | 31.           | 2.                  | 43.4          | 7.3          | 6.2          |     | 4.1  |
| J             | 30.           | 1.                  | 26.6          | 12.6         | 12.1         |     | 4.5  |
| J             | 31.           | 0.                  | 48.4          | 6.7          | 6.2          |     | 4.1  |
| A             | 31.           | 0.                  | 54.1          | 8.1          | 7.5          |     | 4.0  |
| S             | 30.           | 1.                  | 51.5          | 10.3         | 9.1          |     | 4.0  |
| O             | 31.           | 0.                  | 31.4          | 9.4          | 8.4          |     | 4.2  |
| N             | 30.           | 0.                  | 25.6          | 7.6          | 6.3          |     | 4.2  |
| D             | 31.           | 1.                  | 35.8          | 3.3          | 1.9          |     | 4.2  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 10.0        | 15.6          | 64.4          | 16.1         | 4.1           | 4.1         |
| F             | 31.6        | 9.3           | 15.5          | 7.8          | 2.5           | 1.5         |
| M             | 0.6         | 52.5          | 183.1         | 11.7         | 15.6          | 0.8         |
| A             | 0.8         | 88.7          | 82.8          | 25.7         | 12.3          | 11.0        |
| M             | 79.4        | 41.0          | 37.4          | 3.0          | 8.2           | 1.3         |
| J             | 31.6        | 35.8          | 29.4          | 3.0          | 5.8           | 0.8         |
| J             | 79.4        | 29.1          | 15.5          | 1.3          | 2.5           | 0.8         |
| A             | 100.0       | 38.7          | 17.5          | 1.3          | 4.1           | 1.0         |
| S             | 100.0       | 36.1          | 12.0          | 1.7          | 2.5           | 1.0         |
| O             | 63.1        | 8.9           | 10.0          | 1.3          | 1.6           | 0.3         |
| N             | 63.1        | 0.4           | 14.0          | 3.0          | 1.6           | 0.5         |
| D             | 63.1        | 17.0          | 44.4          | 5.2          | 3.3           | 1.8         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 21.            | 53.3          | 18.3         | 1.2      | 19.              | 9.2   |
| F             | 33.            | 28.6          | DEL/ELIM     |          | 32.              | 2.8   |
| M             | 108.           | 90.6          | 16.9         | 1.0      | 107.             | 1.3   |
| A             | 110.           | 67.8          | 11.3         | 1.0      | 107.             | 2.8   |
| M             | 94.            | 47.8          | 8.5          | 1.1      | 93.              | 0.4   |
| J             | 65.            | 28.6          | 11.3         | 1.0      | 64.              | 0.6   |
| J             | 90.            | 34.3          | 11.3         | 1.0      | 89.              | 0.2   |
| A             | 100.           | 42.8          | 14.1         | 1.0      | 100.             | 0.2   |
| S             | 110.           | 42.8          | 5.1          | 1.0      | 110.             | 0.2   |
| O             | 44.            | 29.6          | BDL/SLD      | 1.2      | 44.              | 0.4   |
| N             | 37.            | 25.3          | BDL/SLD      | 1.3      | 37.              | 1.0   |
| D             | 56.            | 56.5          | 11.3         | 1.1      | 56.              | 1.1   |

STATION : PICKLE LAKE  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 1.                  | 12.4          | 2.3          | 0.8          |         | 4.8  |
| F             | 28.           | 15.                 | 12.9          | 2.9          | 1.8          |         | 4.7  |
| M             | 0.            |                     |               |              |              |         |      |
| A             | 30.           | 1.                  | 9.7           | 7.7          | 5.9          |         | 5.2  |
| M             | 30.           | 1.                  | 17.6          | 3.3          | 2.3          | 1.0     | 6.5  |
| J             | 30.           | 12.                 | 8.6           | 7.4          | 6.3          | BDL/SLD | 5.2  |
| J             | 31.           | 12.                 | 13.5          | 4.3          | 1.3          | 1.8     | 7.2  |
| A             | 31.           | 1.                  | 7.6           | 2.1          | 3.0          |         | 5.3  |
| S             | 30.           | 123.                | 9.7           | 5.7          | 5.7          |         | 5.3  |
| O             | 31.           | 1.                  | 11.1          | 4.6          | 2.2          |         | 4.9  |
| N             | 30.           | 12.                 | 11.5          | 4.8          | 3.7          | BDL/SLD | 5.9  |
| D             | 31.           | 0.                  | 4.0           | 3.0          | 2.2          | BDL/SLD | 5.6  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 15.8        | 3.5           | 23.0          | 23.5         | 7.4           | 2.6         |
| F             | 20.0        | 7.3           | 12.5          | 10.4         | 3.3           | 2.0         |
| M             |             |               |               |              |               |             |
| A             | 6.3         | 10.7          | 28.4          | 6.1          | 8.2           | 1.5         |
| M             | 0.3         | 4.4           | 88.8          | 4.8          | 25.5          | 3.6         |
| J             | 6.3         | 4.6           | 19.0          | 5.7          | 5.8           | 3.6         |
| J             | 0.1         | 11.5          | 67.9          | 3.5          | 22.2          | 3.1         |
| A             | 5.0         | 1.2           | 23.0          | 5.7          | 6.6           | 2.6         |
| S             | 5.0         | 11.4          | 21.0          | 6.1          | 4.9           | 1.5         |
| O             | 12.6        | 0.3           | 18.0          | 12.2         | 4.9           | 8.4         |
| N             | 1.3         | BDL/SLD       | 54.4          | 7.4          | 18.9          | 1.0         |
| D             | 2.5         | 0.3           | 12.0          | 7.4          | 3.3           | 0.5         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 33.            | 19.3          | 4.8          | 1.3      | 31.              | 8.4   |
| F             | 19.            | 19.2          | DEL/ELIM     |          | 17.              | 6.7   |
| M             |                |               |              |          |                  |       |
| A             | 31.            | 17.1          | 2.8          | 1.2      | 31.              | 2.3   |
| M             | 69.            | 27.1          | 2.8          | 1.1      | 68.              | 0.8   |
| J             | 27.            | 6.4           | 8.5          | 1.1      | 26.              | 2.5   |
| J             | 42.            | 25.0          | 2.8          | 1.0      | 41.              | 1.0   |
| A             | 29.            | 2.1           | 2.8          | 1.3      | 28.              | 2.3   |
| S             | 33.            | 12.1          | 4.5          | 1.0      | 33.              | 2.2   |
| O             | 25.            | 5.8           | 6.2          | 1.5      | 24.              | 5.8   |
| N             | 25.            | BDL/SLD       | 2.8          | 2.9      | 24.              | 3.5   |
| D             | 19.            | BDL/SLD       | 11.3         | 0.8      | 18.              | 4.7   |



STATION : SIMCOE  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 31.           | 1.                  | 55.6          | 2.5          | 0.9          |     | 4.3  |
| F             | 28.           | 15.                 | 38.0          | 9.6          | 6.8          |     | 4.2  |
| M             | 31.           | 1.                  | 40.3          | 3.0          | 2.6          |     | 4.5  |
| A             | 30.           | 1.                  | 42.5          | 9.8          | 8.6          |     | 4.2  |
| M             | 31.           | 1.                  | 72.6          | 4.7          | 4.0          |     | 3.9  |
| J             | 30.           | 0.                  | 34.6          | 10.4         | 9.9          |     | 4.3  |
| J             | 31.           | 0.                  | 58.3          | 9.7          | 9.2          |     | 4.0  |
| A             | 31.           | 1.                  | 80.0          | 7.1          | 6.3          |     | 3.8  |
| S             | 30.           | 0.                  | 47.4          | 13.8         | 12.8         |     | 4.1  |
| O             | 31.           | 1.                  | 54.2          | 9.5          | 7.6          |     | 4.0  |
| N             | 30.           | 12.                 | 59.4          | 3.9          | 3.0          |     | 3.9  |
| D             | 24.           | 17.                 | 42.7          | 4.7          | 2.9          |     | 3.9  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 50.1        | 32.7          | 95.8          | 53.9         | 23.9          | 12.3        |
| F             | 63.1        | 7.3           | 14.0          | 13.5         | 4.1           | 1.5         |
| M             | 31.6        | 53.2          | 89.3          | 19.1         | 27.1          | 3.3         |
| A             | 63.1        | 33.8          | 44.9          | 11.7         | 10.7          | 1.8         |
| M             | 125.9       | 41.6          | 23.5          | 10.4         | 8.2           | 1.8         |
| J             | 50.1        | 29.6          | 15.5          | 23.9         | 4.1           | 12.0        |
| J             | 100.0       | 29.3          | 18.0          | 3.5          | 4.9           | 1.3         |
| A             | 158.5       | 33.9          | 19.5          | 4.8          | 4.1           | 0.8         |
| S             | 79.4        | 22.8          | 19.5          | 3.9          | 5.8           | 0.8         |
| O             | 100.0       | 17.0          | 17.5          | 1.3          | 4.1           | BDL/SLD     |
| N             | 125.9       | 26.1          | 22.0          | 8.3          | 4.1           | 1.8         |
| D             | 125.9       | 7.3           | 31.9          | 5.7          | 4.9           | BDL/SLD     |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 50.            | 111.2         | 57.5         | 1.2      | 44.              | 12.9  |
| F             | 52.            | 41.1          | DEL/ELIM     |          | 50.              | 3.1   |
| M             | 112.           | 82.1          | 16.9         | 1.1      | 110.             | 2.0   |
| A             | 92.            | 57.1          | 8.5          | 1.1      | 90.              | 1.5   |
| M             | 139.           | 62.1          | 14.1         | 1.0      | 138.             | 0.9   |
| J             | 69.            | 32.8          | 8.5          | 1.2      | 66.              | 4.2   |
| J             | 108.           | 42.8          | 11.3         | 1.0      | 108.             | 0.4   |
| A             | 139.           | 57.1          | 14.1         | 1.1      | 139.             | 0.4   |
| S             | 90.            | 42.1          | 13.3         | 0.9      | 89.              | 0.5   |
| O             | 73.            | 52.2          | 2.8          | 1.1      | 73.              | 0.2   |
| N             | 85.            | 51.0          | 14.1         | 1.3      | 84.              | 1.2   |
| D             | 67.            | 44.9          | 11.3         | 1.4      | 66.              | 1.0   |

STATION : TROUT LAKE  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L     |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|----------|
| J             | 31.           | 12.                 | 23.2          | 1.0          | 0.3          | 3.1 | 6.3      |
| F             | 28.           | 19.                 | 26.2          | 2.2          | 0.2          |     | 6.7      |
| M             | 31.           | 1.                  | 11.9          | 2.3          | 0.9          | 0.7 | 6.3      |
| A             | 30.           | 1.                  | 22.9          | 1.4          | 0.2          |     | 7.2      |
| M             | 31.           | 0.                  | 12.2          | 2.4          | 2.4          | 2.3 | 6.4      |
| J             | 30.           | 2.                  | 12.4          | 8.6          | 7.1          | 1.2 | 6.3      |
| J             | 31.           | 12.                 | 12.2          | 8.2          | 4.0          | 1.6 | 6.0      |
| A             | 31.           | 5.                  | 9.8           | 9.7          | 9.6          | 1.1 | DEL/ELIM |
| S             | 30.           | 1.                  | 7.1           | 15.2         | 11.5         | 1.0 | 6.6      |
| O             | 31.           | 1.                  | 22.6          | 3.6          | 2.1          | 6.6 | 7.0      |
| N             | 30.           | 1.                  | 50.5          | 4.5          | 1.0          | 7.2 | 7.4      |
| D             | 31.           | 12.                 | 22.3          | 2.2          | 0.8          |     | 6.3      |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 0.5         | 0.4           | 131.7         | 32.6         | 31.3          | 11.0        |
| F             | 0.2         | 22.6          | 106.3         | 40.0         | 32.1          | 13.8        |
| M             | 0.5         | 16.9          | 34.9          | 14.8         | 10.7          | 5.9         |
| A             | 0.1         | 0.7           | 132.7         | 25.2         | 28.8          | 7.2         |
| M             | 0.4         | 2.3           | 67.9          | 10.4         | 17.3          | 2.6         |
| J             | 0.5         | 10.8          | 30.4          | 24.8         | 8.2           | 6.6         |
| J             | 1.0         | 12.2          | 45.4          | 17.0         | 14.0          | 4.3         |
| A             | DEL/ELIM    | 18.3          | 53.9          | 6.1          | 5.8           | 1.8         |
| S             | 0.3         | 5.5           | 29.9          | 6.5          | 8.2           | 1.5         |
| O             | 0.1         | 7.3           | 151.2         | 12.6         | 33.7          | 5.1         |
| N             | 0.0         | 65.6          | 95.8          | 197.9        | 24.7          | 50.9        |
| D             | 0.5         | 7.1           | 33.9          | 110.0        | 8.2           | 17.9        |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 56.            | BDL/SLD       | 33.0         | 1.4      | 52.              | 6.9   |
| F             | 67.            | 17.3          | 39.5         |          | 62.              | 7.2   |
| M             | 27.            | 10.7          | 22.6         | 1.1      | 25.              | 6.5   |
| A             | 52.            | BDL/SLD       | 19.7         |          | 49.              | 5.8   |
| M             | 31.            | 0.4           | 11.3         | 1.1      | 30.              | 4.0   |
| J             | 31.            | 5.0           | 25.4         | 1.0      | 28.              | 9.5   |
| J             | 21.            | 30.7          | 19.7         | 0.9      | 19.              | 9.7   |
| A             | 42.            | 7.9           | 14.1         |          | 41.              | 1.7   |
| S             | 23.            | 5.7           | 3.1          | 1.0      | 22.              | 3.4   |
| O             | 29.            | 11.6          | 9.6          | 1.2      | 28.              | 5.2   |
| N             | 54.            | 26.7          | 174.9        | 1.1      | 30.              | 43.7  |
| D             | 25.            | 12.5          | 107.2        |          | 12.              | 52.7  |



STATION : CHIBOUGAMAU  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 31.           | 1.                  | 14.8          | 4.5          | 0.7          |     | 4.6  |
| F             | 28.           | 0.                  | 17.8          | 9.6          | 5.1          |     | 4.5  |
| M             | 31.           | 1.                  | 12.8          | 3.2          | 1.3          |     | 4.8  |
| A             | 30.           | 1.                  | 18.0          | 9.4          | 7.5          |     | 4.6  |
| M             | 31.           | 1.                  | 14.9          | 7.6          | 6.3          |     | 4.5  |
| J             | 31.           | 12.                 | 36.8          | 8.0          | 6.7          |     | 4.2  |
| J             | 30.           | 1.                  | 21.1          | 5.3          | 3.8          |     | 4.5  |
| A             | 30.           | 0.                  | 26.3          | 4.8          | 4.5          |     | 4.4  |
| S             | 30.           | 0.                  | 15.6          | 17.1         | 15.6         |     | 4.6  |
| O             | 31.           | 0.                  | 12.2          | 7.2          | 4.6          |     | 4.7  |
| N             | 30.           | 1.                  | 27.8          | 5.6          | 3.0          |     | 4.3  |
| D             | 30.           | 0.                  | 29.7          | 3.3          | 1.1          |     | 4.3  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 25.1        | 8.6           | 13.0          | 12.6         | 18.1          | 2.6         |
| F             | 31.6        | 4.9           | 3.0           | 4.3          | 0.8           | 1.3         |
| M             | 15.8        | 13.1          | 6.0           | 3.0          | 3.3           | 0.5         |
| A             | 25.1        | 16.8          | 21.0          | 6.1          | 4.1           | 1.0         |
| M             | 31.6        | 6.7           | 7.5           | 0.9          | 3.3           | 2.0         |
| J             | 63.1        | 10.3          | 7.5           | 8.3          | 2.5           | 2.3         |
| J             | 31.6        | 18.2          | 14.0          | 3.9          | 7.4           | 2.6         |
| A             | 39.8        | 23.3          | 13.0          | 8.3          | 4.9           | 1.0         |
| S             | 25.1        | 5.5           | 10.0          | 3.5          | 2.5           | 0.8         |
| O             | 20.0        | 5.6           | 4.5           | 2.6          | 1.6           | 1.3         |
| N             | 50.1        | 19.5          | 5.5           | 4.8          | 2.5           | 2.8         |
| D             | 50.1        | 10.6          | 17.5          | 11.3         | 2.5           | 2.3         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 19.            | 22.1          | 9.9          | 1.6      | 17.              | 8.1   |
| F             | 21.            | 23.6          | 5.6          | 0.9      | 20.              | 2.5   |
| M             | 25.            | 15.0          | 14.1         | 0.8      | 25.              | 1.5   |
| A             | 35.            | 24.3          | 19.7         | 0.9      | 35.              | 2.1   |
| M             | 29.            | 11.4          | 5.6          | 1.1      | 29.              | 0.4   |
| J             | 75.            | 16.4          | 11.3         | 0.9      | 74.              | 1.3   |
| J             | 50.            | 16.4          | 11.3         | 1.0      | 50.              | 0.9   |
| A             | 58.            | 12.8          | 14.1         | 1.1      | 57.              | 1.7   |
| S             | 46.            | 5.0           | 4.5          | 0.9      | 45.              | 0.9   |
| O             | 19.            | 11.6          | BDL/SLD      | 1.1      | 18.              | 1.7   |
| N             | 46.            | 27.4          | BDL/SLD      | 1.2      | 45.              | 1.2   |
| D             | 46.            | 37.5          | 11.3         | 1.0      | 44.              | 3.0   |

STATION : FORT CHIMO  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 30.           | 1.                  | 21.5          | 4.7          | 0.7          |         | 4.9  |
| F             | 27.           | 1.                  | 16.1          | 3.9          | 0.9          |         | 4.8  |
| M             | 0.            |                     |               |              |              |         |      |
| A             | 0.            |                     |               |              |              |         |      |
| M             | 30.           | 1.                  | 22.1          | 3.6          | 0.8          | 1.3     | 7.0  |
| J             | 29.           | 2.                  | 9.7           | 6.4          | 3.3          | BDL/SLD | 5.4  |
| J             | 31.           | 0.                  | 10.7          | 2.4          | 1.3          | 1.2     | 6.4  |
| A             | 31.           | 2.                  | 6.9           | 5.4          | 3.8          | BDL/SLD | 5.9  |
| S             | 29.           | 0.                  | 7.7           | 6.9          | 5.3          |         | 5.2  |
| O             | 30.           | 0.                  | 5.2           | 6.0          | 3.3          |         | 5.1  |
| N             | 29.           | 0.                  | 32.5          | 3.4          | 1.9          | 1.4     | 6.3  |
| D             | 30.           | 0.                  | 29.0          | 4.0          | 1.6          | 2.5     | 6.3  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 12.6        | 0.6           | 12.5          | 83.5         | 18.9          | 5.6         |
| F             | 15.8        | 6.1           | 11.0          | 27.0         | 9.0           | 6.6         |
| M             |             |               |               |              |               |             |
| A             |             |               |               |              |               |             |
| M             | 0.1         | 33.7          | 45.9          | 49.2         | 15.6          | 23.8        |
| J             | 4.0         | 11.3          | 10.5          | 12.6         | 3.3           | 7.4         |
| J             | 0.4         | BDL/SLD       | 34.4          | 24.4         | 14.8          | 9.5         |
| A             | 1.3         | 3.2           | 12.0          | 7.0          | 3.3           | 1.5         |
| S             | 6.3         | BDL/SLD       | 8.5           | 13.9         | 3.3           | 1.8         |
| O             | 7.9         | 0.7           | 2.0           | 8.7          | 1.6           | 0.5         |
| N             | 0.5         | 0.6           | 24.0          | 188.8        | 9.0           | 24.0        |
| D             | 0.5         | 36.3          | 27.9          | 112.2        | 16.5          | 30.9        |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 23.            | 11.9          | 98.4         | 1.0      | 13.              | 43.6  |
| F             | 25.            | 20.6          | 31.0         | 1.0      | 22.              | 12.9  |
| M             |                |               |              |          |                  |       |
| A             |                |               |              |          |                  |       |
| M             | 62.            | 17.8          | 48.0         | 1.1      | 57.              | 9.4   |
| J             | 25.            | 5.0           | 16.9         | 1.0      | 23.              | 6.0   |
| J             | 40.            | 10.0          | 26.8         | 0.8      | 37.              | 7.4   |
| A             | 12.            | 3.6           | 16.9         | 0.8      | 12.              | 6.7   |
| S             | 17.            | 3.6           | 16.1         | 0.9      | 15.              | 10.0  |
| O             | 10.            | BDL/SLD       | 8.5          | 1.1      | 9.               | 10.0  |
| N             | 29.            | BDL/SLD       | 172.1        | 1.1      | 7.               | 77.5  |
| D             | 17.            | 6.1           | 118.5        | 1.2      | 3.               | 80.6  |



STATION : MANIWAKI  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 31.           | 12.                 | 61.2          | 2.1          | 0.5          |     | 4.2  |
| F             | 28.           | 1.                  | 16.9          | 11.6         | 12.9         |     | 4.4  |
| M             | 32.           | 12.                 | 38.5          | 5.0          | 4.0          |     | 4.2  |
| A             | 30.           | 12.                 | 36.7          | 6.7          | 4.8          |     | 4.4  |
| M             | 31.           | 2.                  | 41.1          | 10.5         | 9.5          |     | 4.1  |
| J             | 30.           | 1.                  | 31.9          | 11.6         | 6.1          |     | 4.3  |
| J             | 30.           | 1.                  | 52.8          | 7.1          | 8.3          |     | 4.0  |
| A             | 31.           | 1.                  | 21.1          | 9.5          | 8.0          |     | 4.4  |
| S             | 31.           | 0.                  | 36.1          | 8.3          | 6.6          |     | 4.2  |
| O             | 30.           | 1.                  | 33.2          | 6.5          | 3.4          |     | 4.2  |
| N             | 30.           | 2.                  | 28.8          | 7.4          | 5.7          |     | 4.2  |
| D             | 32.           | 1.                  | 28.8          | 2.5          | 1.8          |     | 4.3  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 63.1        | 128.5         | 37.4          | 42.2         | 8.2           | 3.6         |
| F             | 39.8        | 8.9           | 3.5           | 5.7          | 0.8           | 1.3         |
| M             | 63.1        | 62.0          | 28.4          | 23.1         | 5.8           | 1.3         |
| A             | 39.8        | 53.2          | 48.4          | 10.0         | 10.7          | 1.8         |
| M             | 79.4        | 29.3          | 14.5          | 3.5          | 4.1           | 1.3         |
| J             | 50.1        | 6.4           | 10.0          | 10.9         | 2.5           | 4.6         |
| J             | 100.0       | 31.5          | 15.5          | 11.7         | 4.1           | 3.6         |
| A             | 39.8        | 4.4           | 7.0           | 2.2          | 1.6           | 1.0         |
| S             | 63.1        | 18.3          | 12.5          | 10.0         | 1.6           | 1.0         |
| O             | 63.1        | 2.3           | 7.0           | 1.7          | 1.6           | 0.8         |
| N             | 63.1        | 11.1          | 10.0          | 2.6          | 1.6           | 0.5         |
| D             | 50.1        | 37.5          | 10.5          | 7.8          | 1.6           | 1.3         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 108.           | 132.6         | 37.0         | 1.0      | 103.             | 4.7   |
| F             | 27.            | 23.5          | 5.6          | 1.1      | 26.              | 2.5   |
| M             | 98.            | 51.4          | 16.9         | 1.1      | 95.              | 2.8   |
| A             | 98.            | 52.8          | 8.5          | 1.0      | 97.              | 1.2   |
| M             | 81.            | 36.4          | 5.6          | 1.1      | 81.              | 0.5   |
| J             | 58.            | 20.0          | 11.3         | 0.9      | 57.              | 2.2   |
| J             | 117.           | 24.3          | 5.6          | 1.1      | 115.             | 1.2   |
| A             | 48.            | BDL/SLD       | 2.8          | 1.1      | 48.              | 0.5   |
| S             | 85.            | 32.8          | 3.4          | 0.9      | 84.              | 1.4   |
| O             | 52.            | 26.9          | BDL/SLD      | 1.0      | 52.              | 0.4   |
| N             | 37.            | 25.9          | 5.6          | 1.3      | 37.              | 0.8   |
| D             | 46.            | 52.8          | 11.3         | 1.0      | 45.              | 2.0   |

STATION : NITCHEQUON  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 0.            |                     |               |              |              |         |      |
| F             | 0.            |                     |               |              |              |         |      |
| M             | 30.           | 12.                 | 8.1           | 3.6          | 1.4          |         | 5.0  |
| A             | 31.           | 2.                  | 7.5           | 8.5          | 3.5          | BDL/SLD | 5.3  |
| M             | 31.           | 1.                  | 14.7          | 10.3         | 7.7          |         | 4.6  |
| J             | 30.           | 0.                  | 9.9           | 8.4          | 6.0          |         | 4.8  |
| J             | 31.           | 1.                  | 8.9           | 5.5          | 4.4          |         | 4.3  |
| A             | 31.           | 0.                  | 4.6           | 13.3         | 9.4          | BDL/SLD | 5.2  |
| S             | 30.           | 0.                  | 9.6           | 15.1         | 12.7         |         | 5.4  |
| O             | 31.           | 2.                  | 17.2          | 6.0          | 3.5          |         | 4.6  |
| N             | 30.           | 1.                  | 20.2          | 4.8          | 1.6          | BDL/SLD | 5.2  |
| D             | 30.           | 1.                  | 8.0           | 3.8          | 1.8          | 0.3     | 5.8  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             |             |               |               |              |               |             |
| F             |             |               |               |              |               |             |
| M             | 10.0        | 0.6           | 9.0           | 6.1          | BDL/SLD       | 0.8         |
| A             | 5.0         | 7.9           | 10.0          | 9.1          | 1.6           | 4.1         |
| M             | 25.1        | 7.6           | 10.5          | 18.7         | 1.6           | 4.1         |
| J             | 15.8        | BDL/SLD       | 5.0           | 8.3          | BDL/SLD       | 3.6         |
| J             | 50.1        | BDL/SLD       | 5.0           | 11.3         | BDL/SLD       | 3.8         |
| A             | 6.3         | BDL/SLD       | 5.0           | 8.3          | BDL/SLD       | 2.3         |
| S             | 4.0         | BDL/SLD       | 5.5           | 19.6         | BDL/SLD       | 2.0         |
| O             | 25.1        | 9.4           | 6.5           | 13.9         | 1.6           | 5.1         |
| N             | 6.3         | 26.1          | 10.0          | 28.7         | 2.5           | 10.7        |
| D             | 1.6         | 0.8           | 7.5           | 2.6          | 1.6           | BDL/SLD     |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             |                |               |              |          |                  |       |
| F             |                |               |              |          |                  |       |
| M             | 12.            | 0.7           | 14.1         | 1.0      | 12.              | 5.8   |
| A             | 17.            | 7.9           | 8.5          | 1.1      | 16.              | 6.6   |
| M             | 35.            | 8.6           | 16.9         | 1.1      | 33.              | 6.3   |
| J             | 23.            | BDL/SLD       | 11.3         | 1.0      | 22.              | 4.3   |
| J             | 19.            | BDL/SLD       | 11.3         | 2.3      | 17.              | 7.2   |
| A             | 8.             | BDL/SLD       | 11.3         | 1.1      | 7.               | 11.9  |
| S             | 15.            | BDL/SLD       | 3.9          | 1.7      | 12.              | 16.1  |
| O             | 31.            | 11.6          | 11.0         | 1.1      | 30.              | 5.3   |
| N             | 27.            | 15.3          | 19.7         | 1.4      | 24.              | 12.7  |
| D             | 8.             | 11.7          | 8.2          | 0.4      | 8.               | 3.7   |



STATION : QUEBEC CITY  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 0.            |                     |               |              |              |     |      |
| F             | 0.            |                     |               |              |              |     |      |
| M             | 0.            |                     |               |              |              |     |      |
| A             | 30.           | 0.                  | 44.2          | 12.0         | 9.8          |     | 4.2  |
| M             | 31.           | 1.                  | 54.7          | 12.2         | 10.8         |     | 4.0  |
| J             | 30.           | 12.                 | 41.5          | 17.8         | 17.5         |     | 4.1  |
| J             | 31.           | 0.                  | 31.3          | 9.5          | 8.2          |     | 4.4  |
| A             | 31.           | 1.                  | 29.1          | 11.8         | 10.2         |     | 4.2  |
| S             | 31.           | 0.                  | 20.4          | 15.9         | 13.7         |     | 4.5  |
| O             | 31.           | 0.                  | 44.9          | 12.7         | 7.5          |     | 4.1  |
| N             | 30.           | 12.                 | 44.5          | 7.0          | 4.2          |     | 4.1  |
| D             | 0.            |                     |               |              |              |     |      |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             |             |               |               |              |               |             |
| F             |             |               |               |              |               |             |
| M             |             |               |               |              |               |             |
| A             | 63.1        | 31.9          | 33.9          | 6.1          | 5.8           | 1.0         |
| M             | 100.0       | 25.1          | 29.4          | 7.4          | 4.1           | 1.5         |
| J             | 79.4        | 23.8          | 12.0          | 3.0          | 1.6           | 1.8         |
| J             | 39.8        | 18.5          | 13.0          | 3.0          | 1.6           | 1.3         |
| A             | 63.1        | 13.2          | 9.5           | 3.0          | 1.6           | 0.5         |
| S             | 31.6        | 13.9          | 17.0          | 2.6          | 1.6           | 0.5         |
| O             | 79.4        | 18.6          | 15.0          | 4.3          | 2.5           | 0.5         |
| N             | 79.4        | 28.6          | 38.4          | 13.5         | 4.1           | 3.8         |
| D             |             |               |               |              |               |             |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             |                |               |              |          |                  |       |
| F             |                |               |              |          |                  |       |
| M             |                |               |              |          |                  |       |
| A             | 92.            | 50.0          | 8.5          | 0.9      | 91.              | 0.8   |
| M             | 106.           | 27.1          | 19.7         | 1.1      | 105.             | 0.8   |
| J             | 81.            | 22.1          | 11.3         | 1.1      | 81.              | 0.4   |
| J             | 62.            | 15.7          | 11.3         | 0.9      | 62.              | 0.6   |
| A             | 52.            | 13.6          | 11.3         | 1.2      | 52.              | 0.7   |
| S             | 52.            | 10.0          | 1.4          | 1.1      | 52.              | 0.6   |
| O             | 71.            | 38.3          | 5.1          | 1.1      | 70.              | 0.7   |
| N             | 81.            | 51.6          | 14.1         | 1.1      | 80.              | 2.0   |
| D             |                |               |              |          |                  |       |

STATION : ST HUBERT  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 0.            |                     |               |              |              |         |      |
| F             | 29.           | 0.                  | 26.4          | 8.2          | 8.5          |         | 4.6  |
| M             | 31.           | 1.                  | 55.0          | 8.8          | 1.4          |         | 4.6  |
| A             | 30.           | 1.                  | 45.8          | 7.0          | 4.5          |         | 4.2  |
| M             | 31.           | 1.                  | 66.0          | 9.7          | 3.3          |         | 4.5  |
| J             | 30.           | 1.                  | 43.7          | 12.4         | 7.3          |         | 4.2  |
| J             | 32.           | 0.                  | 28.0          | 13.0         | 10.0         |         | 4.4  |
| A             | 31.           | 123.                | 35.2          | 17.7         | 13.7         | 3.7     | 6.0  |
| S             | 30.           | 123.                | 32.4          | 8.6          | 5.5          |         | 4.3  |
| O             | 31.           | 2.                  | 26.0          | 10.8         | 7.6          |         | 4.5  |
| N             | 30.           | 12.                 | 29.7          | 8.0          | 7.4          |         | 4.4  |
| D             | 31.           | 1.                  | 26.5          | 6.4          | 1.9          | BDL/SLD | 5.2  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             |             |               |               |              |               |             |
| F             | 25.1        | 23.6          | 29.9          | 27.0         | 3.3           | 1.3         |
| M             | 25.1        | 86.2          | 140.7         | 47.4         | 17.3          | 2.8         |
| A             | 63.1        | 46.3          | 56.9          | 8.7          | 8.2           | 1.3         |
| M             | 31.6        | 74.9          | 75.3          | 9.6          | 33.7          | 22.5        |
| J             | 63.1        | 39.8          | 33.4          | 5.7          | 5.8           | 1.5         |
| J             | 39.8        | 22.8          | 15.5          | 5.7          | 2.5           | 1.5         |
| A             | 1.0         | 117.9         | 68.4          | 6.5          | 5.8           | 7.7         |
| S             | 50.1        | 35.8          | 17.0          | 5.2          | 2.5           | 1.5         |
| O             | 31.6        | 12.3          | 27.4          | 16.5         | 4.1           | 8.9         |
| N             | 39.8        | 21.2          | 48.9          | 7.4          | 4.1           | 1.8         |
| D             | 6.3         | 33.5          | 57.9          | 59.6         | 4.9           | 3.1         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             |                |               |              |          |                  |       |
| F             | 50.            | 35.5          | 25.4         | 1.0      | 47.              | 6.5   |
| M             | 171.           | 92.8          | 48.0         | 1.0      | 165.             | 3.3   |
| A             | 115.           | 62.8          | 11.3         | 1.0      | 113.             | 0.9   |
| M             | 142.           | 50.7          | 16.9         | 1.2      | 140.             | 0.8   |
| J             | 100.           | 36.4          | 8.5          | 1.0      | 99.              | 0.7   |
| J             | 58.            | 20.0          | 11.3         | 1.0      | 58.              | 1.2   |
| A             | 150.           | 17.8          | 16.9         | 0.8      | 149.             | 0.5   |
| S             | 79.            | 28.6          | 5.1          | 1.0      | 78.              | 0.8   |
| O             | 52.            | 30.4          | 8.7          | 1.1      | 50.              | 3.8   |
| N             | 69.            | 29.6          | 2.8          | 1.2      | 68.              | 1.3   |
| D             | 54.            | 39.0          | 53.6         | 1.1      | 47.              | 13.2  |



STATION : SEPT ISLES  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 0.            |                     |               |              |              |     |      |
| F             | 28.           | 2.                  | 24.2          | 15.3         | 12.2         |     | 4.5  |
| M             | 31.           | 0.                  | 17.8          | 9.8          | 6.4          |     | 4.5  |
| A             | 30.           | 0.                  | 24.7          | 13.4         | 10.8         |     | 4.5  |
| M             | 31.           | 0.                  | 18.7          | 15.1         | 14.5         |     | 4.5  |
| J             | 30.           | 1.                  | 18.0          | 12.0         | 11.7         |     | 4.6  |
| J             | 31.           | 2.                  | 20.4          | 7.1          | 6.8          |     | 4.6  |
| A             | 31.           | 0.                  | 18.7          | 4.4          | 3.7          |     | 4.5  |
| S             | 30.           | 1.                  | 18.5          | 8.0          | 8.0          |     | 4.6  |
| O             | 31.           | 0.                  | 15.6          | 15.1         | 13.9         |     | 4.8  |
| N             | 30.           | 0.                  | 36.2          | 7.7          | 4.0          |     | 4.2  |
| D             | 31.           | 0.                  | 11.1          | 12.2         | 7.2          |     | 4.9  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             |             |               |               |              |               |             |
| F             | 31.6        | 1.1           | 7.0           | 43.5         | 8.2           | 2.6         |
| M             | 31.6        | BDL/SLD       | 3.5           | 20.4         | 3.3           | 1.0         |
| A             | 31.6        | 19.8          | 10.5          | 17.8         | 5.8           | 25.6        |
| M             | 31.6        | 9.7           | 5.0           | 9.6          | 2.5           | 1.5         |
| J             | 25.1        | 0.4           | 7.0           | 35.2         | 4.9           | 4.3         |
| J             | 25.1        | 2.0           | 8.5           | 27.0         | 3.3           | 7.7         |
| A             | 31.6        | 10.1          | 7.0           | 18.7         | 2.5           | 3.8         |
| S             | 25.1        | BDL/SLD       | 9.5           | 32.2         | 6.6           | 1.0         |
| O             | 15.8        | 0.1           | 5.5           | 30.0         | 6.6           | 1.3         |
| N             | 63.1        | 1.0           | 8.5           | 70.0         | 14.8          | 2.8         |
| D             | 12.6        | BDL/SLD       | 5.0           | 18.7         | 3.3           | 1.5         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             |                |               |              |          |                  |       |
| F             | 40.            | 14.6          | 45.1         | 0.9      | 34.              | 13.2  |
| M             | 21.            | BDL/SLD       | 19.7         | 1.5      | 18.              | 11.7  |
| A             | 44.            | 23.6          | 16.9         | 1.3      | 42.              | 4.9   |
| M             | 31.            | 9.3           | 11.3         | 1.2      | 30.              | 3.7   |
| J             | 31.            | BDL/SLD       | 39.5         | 1.1      | 27.              | 13.5  |
| J             | 37.            | 5.7           | 33.9         | 1.0      | 34.              | 8.6   |
| A             | 27.            | 12.1          | 28.2         | 1.1      | 25.              | 8.3   |
| S             | 33.            | 6.4           | 35.0         | 1.0      | 29.              | 11.6  |
| O             | 23.            | 0.9           | 35.0         | 1.0      | 19.              | 15.7  |
| N             | 31.            | 23.1          | 101.6        | 1.0      | 23.              | 26.8  |
| D             | 10.            | 2.6           | 14.1         | 1.5      | 8.               | 21.5  |

STATION : ACADIA FES  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 31.           | 1.                  | 13.9          | 12.4         | 7.9          |     | 4.8  |
| F             | 28.           | 12.                 | 15.6          | 8.4          | 7.6          |     | 4.5  |
| M             | 31.           | 12.                 | 19.2          | 9.8          | 8.6          |     | 4.4  |
| A             | 30.           | 0.                  | 22.7          | 12.8         | 11.5         |     | 4.4  |
| M             | 31.           | 123.                | 18.3          | 13.5         | 13.1         |     | 4.5  |
| J             | 30.           | 2.                  | 45.4          | 14.9         | 21.0         |     | 4.0  |
| J             | 31.           | 123.                | 25.1          | 6.3          | 5.0          |     | 4.4  |
| A             | 31.           | 2.                  | 39.8          | 18.4         | 17.9         |     | 4.1  |
| S             | 30.           | 12.                 | 18.9          | 13.8         | 13.4         |     | 4.5  |
| O             | 31.           | 1.                  | 12.2          | 16.1         | 15.3         |     | 4.6  |
| N             | 30.           | 0.                  | 23.2          | 9.5          | 8.5          |     | 4.3  |
| D             | 31.           | 1.                  | 10.4          | 17.2         | 15.4         |     | 4.7  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 15.8        | BDL/SLD       | 4.0           | 8.7          | 4.9           | 0.5         |
| F             | 31.6        | 2.2           | 5.5           | 25.7         | 7.4           | 1.0         |
| M             | 39.8        | 7.4           | 12.0          | 13.5         | 7.4           | 0.8         |
| A             | 39.8        | 9.9           | 6.5           | 8.7          | 3.3           | 1.0         |
| M             | 31.6        | 9.2           | 4.5           | 13.5         | 2.5           | 5.4         |
| J             | 100.0       | 18.6          | 24.5          | 2.2          | 6.6           | 1.0         |
| J             | 39.8        | 14.8          | 3.0           | 6.1          | 0.8           | 1.3         |
| A             | 79.4        | 13.5          | 5.0           | 1.7          | 0.8           | 0.3         |
| S             | 31.6        | 7.9           | 4.5           | 3.9          | 0.8           | 0.5         |
| O             | 25.1        | BDL/SLD       | 2.5           | 4.3          | 2.5           | BDL/SLD     |
| N             | 50.1        | 0.4           | 3.0           | 4.3          | 1.6           | 0.3         |
| D             | 20.0        | 0.1           | 3.0           | 8.7          | 1.6           | 0.5         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | BDL/SLD        | 9.5           | 14.7         |          | BDL/SLD          |       |
| F             | 21.            | 14.2          | 28.2         | 1.2      | 18.              | 14.7  |
| M             | 33.            | 24.3          | 16.9         | 1.1      | 32.              | 4.8   |
| A             | 35.            | 17.8          | 8.5          | 1.1      | 34.              | 2.9   |
| M             | 35.            | 8.6           | 8.5          | 1.3      | 34.              | 4.6   |
| J             | 106.           | 27.1          | 6.5          | 1.1      | 106.             | 0.2   |
| J             | 48.            | 12.8          | 11.3         | 0.9      | 47.              | 1.5   |
| A             | 60.            | 17.8          | 5.6          | 1.2      | 60.              | 0.3   |
| S             | 33.            | 8.6           | 6.5          | 1.0      | 33.              | 1.4   |
| O             | 19.            | 5.4           | 1.7          | 1.3      | 18.              | 2.8   |
| N             | 31.            | 10.3          | 25.4         | 0.9      | 31.              | 1.7   |
| D             | 12.            | BDL/SLD       | 5.6          | 1.9      | 11.              | 8.3   |



STATION : CHARLO  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 31.           | 1.                  | 18.4          | 8.7          | 1.9          |     | 4.9  |
| F             | 28.           | 1.                  | 48.8          | 3.4          | 1.0          |     | 4.6  |
| M             | 31.           | 0.                  | 25.1          | 16.2         | 9.1          |     | 5.0  |
| A             | 30.           | 1.                  | 29.5          | 4.7          | 3.6          |     | 4.4  |
| M             | 31.           | 2.                  | 24.0          | 11.2         | 8.3          |     | 4.7  |
| J             | 31.           | 1.                  | 31.5          | 14.0         | 10.3         |     | 4.3  |
| J             | 31.           | 0.                  | 28.4          | 4.5          | 2.0          |     | 4.5  |
| A             | 31.           | 23.                 | 18.5          | 11.6         | 10.2         |     | 4.6  |
| S             | 30.           | 1.                  | 15.9          | 9.1          | 6.4          |     | 4.7  |
| O             | 31.           | 0.                  | 19.9          | 14.3         | 12.6         |     | 4.7  |
| N             | 30.           | 0.                  | 33.6          | 7.3          | 2.0          |     | 4.5  |
| D             | 31.           | 0.                  | 19.7          | 14.7         | 12.4         | 3.3 | 6.6  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 12.6        | 8.6           | 14.0          | 42.2         | 4.9           | 4.3         |
| F             | 25.1        | 32.5          | 51.4          | 126.6        | 18.9          | 21.0        |
| M             | 10.0        | 0.9           | 11.0          | 99.6         | 18.9          | 3.6         |
| A             | 39.8        | 23.3          | 26.4          | 32.6         | 7.4           | 7.4         |
| M             | 20.0        | 24.1          | 14.5          | 31.8         | 4.1           | 18.4        |
| J             | 50.1        | 8.1           | 7.0           | 14.8         | 2.5           | 3.1         |
| J             | 31.6        | 15.9          | 27.4          | 22.2         | 4.1           | 7.9         |
| A             | 25.1        | BDL/SLD       | 12.0          | 37.0         | 4.1           | 4.3         |
| S             | 20.0        | 4.6           | 9.5           | 15.7         | 2.5           | 2.6         |
| O             | 20.0        | 7.1           | 5.0           | 45.7         | 9.9           | 3.1         |
| N             | 31.6        | 11.6          | 12.0          | 96.6         | 14.8          | 13.6        |
| D             | 0.3         | 17.3          | 57.4          | 53.9         | 23.9          | 8.9         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | CDR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 44.            | 16.3          | 44.9         | 0.8      | 39.              | 11.5  |
| F             | 81.            | 70.7          | 121.3        | 1.0      | 66.              | 18.7  |
| M             | 33.            | 8.6           | 126.9        | 0.9      | 21.              | 35.8  |
| A             | 60.            | 29.3          | 31.0         | 1.1      | 56.              | 6.5   |
| M             | 71.            | 14.3          | 33.9         | 0.9      | 67.              | 5.4   |
| J             | 56.            | 12.8          | 16.9         | 1.0      | 54.              | 3.1   |
| J             | 79.            | 11.4          | 25.4         | 0.9      | 76.              | 3.4   |
| A             | 42.            | 3.6           | 28.2         | 1.1      | 37.              | 10.6  |
| S             | 35.            | 5.7           | 11.3         | 1.0      | 34.              | 5.3   |
| O             | 25.            | 9.2           | 49.9         | 1.1      | 20.              | 21.9  |
| N             | 50.            | 13.8          | 11.3         | 2.4      | 38.              | 23.1  |
| D             | 21.            | 4.2           | 50.8         | 1.1      | 14.              | 31.0  |

STATION : SAINT JOHN  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 1.                  | 21.9          | 3.4          | 6.1          | 0.7     | 5.9  |
| F             | 28.           | 0.                  | 24.9          | 9.7          | 9.1          | 1.9     | 7.4  |
| M             | 31.           | 1.                  | 24.9          | 4.4          | 4.7          |         | 6.7  |
| A             | 30.           | 1.                  | 22.2          | 15.3         | 13.0         | BDL/SLD | 5.5  |
| M             | 30.           | 2.                  | 11.5          | 14.1         | 10.4         | 0.8     | 5.8  |
| J             | 0.            |                     |               |              |              |         |      |
| J             | 0.            |                     |               |              |              |         |      |
| A             | 31.           | 0.                  | 58.3          | 18.1         | 16.4         |         | 4.0  |
| S             | 30.           | 0.                  | 12.6          | 10.1         | 8.3          |         | 4.8  |
| O             | 31.           | 0.                  | 8.7           | 20.1         | 17.8         |         | 4.9  |
| N             | 30.           | 0.                  | 19.1          | 13.8         | 10.9         |         | 4.5  |
| D             | 31.           | 0.                  | 13.2          | 25.6         | 20.8         |         | 4.9  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 1.3         | 1.5           | 23.5          | 100.5        | 16.5          | 2.0         |
| F             | 0.0         | 9.4           | 48.9          | 89.2         | 47.7          | 3.3         |
| M             | 0.2         | 31.8          |               |              |               |             |
| A             | 3.2         | 17.8          | 45.4          | 44.8         | 38.7          | 2.3         |
| M             | 1.6         | 10.5          | 34.9          | 6.5          | 25.5          | 1.0         |
| J             |             |               |               |              |               |             |
| J             |             |               |               |              |               |             |
| A             | 100.0       | 22.3          | 15.5          | 8.7          | 6.6           | 0.8         |
| S             | 15.8        | BDL/SLD       | 14.0          | 10.4         | 8.2           | 0.8         |
| O             | 12.6        | 0.6           | 4.5           | 11.7         | 4.9           | 1.0         |
| N             | 31.6        | 0.4           | 6.5           | 31.3         | 7.4           | 1.0         |
| D             | 12.6        | 1.8           | 9.5           | 36.1         | 11.5          | 1.3         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 21.            | 5.4           | 112.6        | 1.0      | 9.               | 57.7  |
| F             | 42.            | 15.3          | 98.7         | 1.0      | 31.              | 25.6  |
| M             | 60.            | 37.8          | 31.0         |          |                  |       |
| A             | 60.            | 26.4          | 50.8         | 1.1      | 55.              | 8.9   |
| M             | 44.            | 12.8          | 16.9         | 0.9      | 43.              | 1.8   |
| J             |                |               |              |          |                  |       |
| J             |                |               |              |          |                  |       |
| A             | 98.            | 38.5          | 11.3         | 1.0      | 97.              | 1.1   |
| S             | 29.            | 11.4          | 10.4         | 1.0      | 28.              | 4.3   |
| O             | 15.            | 3.9           | 10.2         | 1.2      | 13.              | 9.6   |
| N             | 37.            | 4.6           | 98.7         | 0.6      | 34.              | 10.0  |
| D             | 17.            | 6.1           | 36.7         | 1.2      | 12.              | 25.9  |



STATION : KEJIMKUJIK  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 31.           | 1.                  | 12.2          | 15.1         | 16.5         |     | 5.0  |
| F             | 28.           | 12.                 | 22.4          | 9.8          | 9.6          |     | 4.6  |
| M             | 31.           | 1.                  | 18.3          | 14.6         | 14.8         |     | 4.5  |
| A             | 30.           | 12.                 | 35.0          | 10.6         | 10.3         |     | 4.2  |
| M             | 31.           | 3.                  | 11.3          | 10.6         | 9.4          |     | 4.7  |
| J             | 30.           | 12.                 | 30.8          | 14.9         | 14.4         |     | 4.2  |
| J             | 31.           | 12.                 | 18.2          | 13.8         | 13.8         |     | 4.5  |
| A             | 31.           | 1.                  | 36.5          | 6.4          | 7.8          |     | 4.2  |
| S             | 30.           | 0.                  | 24.1          | 4.5          | 9.2          |     | 4.4  |
| O             | 31.           | 2.                  | 12.4          | 15.9         | 15.9         |     | 4.7  |
| N             | 30.           | 0.                  | 14.7          | 16.6         | 16.8         |     | 4.6  |
| D             | 31.           | 12.                 | 20.0          | 24.5         | 23.4         |     | 4.7  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 10.0        | 0.6           | 6.0           | 42.2         | 9.0           | 1.8         |
| F             | 25.1        | 3.1           | 4.0           | 53.9         | 12.3          | 1.3         |
| M             | 31.6        | 0.7           | 9.5           | 39.1         | 9.0           | 0.8         |
| A             | 63.1        | 16.6          | 7.0           | 29.6         | 7.4           | 1.0         |
| M             | 20.0        | 2.3           | 4.0           | 8.3          | 3.3           | 1.0         |
| J             | 63.1        | 1.9           | 2.0           | 5.7          | 0.8           | 1.0         |
| J             | 31.6        | 1.2           | 2.0           | 3.0          | BDL/SLD       | 0.5         |
| A             | 63.1        | 9.4           | 5.0           | 3.9          | 1.6           | BDL/SLD     |
| S             | 39.8        | 9.1           | 14.5          | 12.6         | 4.1           | 0.8         |
| O             | 20.0        | 0.2           | BDL/SLD       | 13.5         | 3.3           | BDL/SLD     |
| N             | 25.1        | 0.9           | 2.5           | 14.8         | 3.3           | 0.5         |
| D             | 20.0        | 0.3           | 6.0           | 58.3         | 11.5          | 2.6         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 15.            | 5.4           | 42.3         | 1.1      | 10.              | 34.6  |
| F             | 25.            | 12.8          | 62.1         | 1.0      | 19.              | 25.8  |
| M             | 25.            | 17.8          | 56.4         | 0.9      | 20.              | 18.7  |
| A             | 56.            | 31.4          | 28.2         | 1.1      | 53.              | 6.3   |
| M             | 25.            | 0.7           | 11.3         | 1.0      | 24.              | 4.0   |
| J             | 52.            | 16.4          | 5.6          | 1.0      | 51.              | 1.3   |
| J             | 29.            | 9.3           | 8.5          | 0.8      | 29.              | 1.2   |
| A             | 48.            | 21.4          | 8.5          | 1.1      | 47.              | 1.0   |
| S             | 37.            | 14.2          | 15.8         | 1.2      | 36.              | 4.0   |
| O             | 17.            | 5.5           | 16.6         | 1.0      | 15.              | 9.7   |
| N             | 19.            | 6.7           | 22.6         | 1.0      | 17.              | 9.4   |
| D             | 19.            | BDL/SLD       | 59.2         | 1.3      | 12.              | 37.2  |

STATION : SABLE ISLAND  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 16.                 | 260.0         | 11.8         | 21.5         |         | 5.0  |
| F             | 28.           | 16.                 | 190.0         | 6.6          | 9.7          | BDL/SLD | 5.6  |
| M             | 0.            |                     |               |              |              |         |      |
| A             | 30.           | 1.                  | 174.0         | 11.8         | 8.6          |         | 4.7  |
| M             | 0.            |                     |               |              |              |         |      |
| J             | 0.            |                     |               |              |              |         |      |
| J             | 0.            |                     |               |              |              |         |      |
| A             | 30.           | 0.                  | 11.5          | 12.7         | 10.7         | BDL/SLD | 5.5  |
| S             | 0.            |                     |               |              |              |         |      |
| O             | 31.           | 16.                 | 63.5          | 10.5         | 10.9         |         | 4.7  |
| N             | 0.            |                     |               |              |              |         |      |
| D             | 0.            |                     |               |              |              |         |      |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 10.0        | BDL/SLD       | 75.8          | 865.6        | 351.3         | 34.0        |
| F             | 2.5         | 1.6           | 52.4          | 115.3        | 221.3         | 22.0        |
| M             |             |               |               |              |               |             |
| A             | 20.0        | 1.6           | 50.4          | 960.4        | 203.2         | 19.7        |
| M             |             |               |               |              |               |             |
| J             |             |               |               |              |               |             |
| J             |             |               |               |              |               |             |
| A             | 3.2         | BDL/SLD       | 6.0           | 67.9         | 10.7          | 1.8         |
| S             |             |               |               |              |               |             |
| O             | 20.0        | 10.4          | 51.9          | 103.1        | 231.2         | 25.6        |
| N             |             |               |               |              |               |             |
| D             |             |               |               |              |               |             |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 139.           | 6.9           | 739.9        | 0.7      | 36.              | 74.3  |
| F             | 144.           | 0.7           | 094.5        | 1.1      | 10.              | 92.9  |
| M             |                |               |              |          |                  |       |
| A             | 139.           | 20.0          | 004.2        | 1.1      | 25.              | 82.4  |
| M             |                |               |              |          |                  |       |
| J             |                |               |              |          |                  |       |
| J             |                |               |              |          |                  |       |
| A             | 21.            | BDL/SLD       | 59.2         | 1.1      | 13.              | 39.0  |
| S             |                |               |              |          |                  |       |
| O             | 164.           | 8.9           | 358.5        | 0.9      | 32.              | 80.3  |
| N             |                |               |              |          |                  |       |
| D             |                |               |              |          |                  |       |



STATION : SHELBURNE  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 31.           | 0.                  | 22.4          | 11.8         | 5.3          |     | 4.7  |
| F             | 28.           | 2.                  | 39.8          | 7.2          | 6.8          |     | 4.6  |
| M             | 31.           | 0.                  | 28.6          | 12.8         | 10.3         |     | 4.6  |
| A             | 30.           | 1.                  | 34.8          | 8.6          | 7.7          |     | 4.3  |
| M             | 31.           | 0.                  | 8.8           | 10.0         | 9.8          |     | 4.9  |
| J             | 30.           | 12.                 | 36.4          | 11.1         | 10.2         |     | 4.2  |
| J             | 31.           | 1.                  | 20.2          | 14.4         | 14.1         |     | 4.4  |
| A             | 31.           | 0.                  | 30.6          | 7.3          | 6.7          |     | 4.3  |
| S             | 31.           | 0.                  | 19.6          | 11.5         | 11.4         |     | 4.5  |
| O             | 31.           | 0.                  | 28.8          | 12.1         | 11.2         |     | 4.5  |
| N             | 30.           | 0.                  | 26.5          | 18.1         | 18.7         |     | 4.6  |
| D             | 31.           | 1.                  | 28.2          | 27.8         | 26.5         |     | 4.6  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 20.0        | BDL/SLD       | 6.0           | 93.1         | 17.3          | 4.9         |
| F             | 25.1        | 3.6           | 8.0           | 159.2        | 34.6          | 3.6         |
| M             | 25.1        | 9.8           | 10.5          | 67.0         | 14.8          | 5.6         |
| A             | 50.1        | 12.6          | 6.5           | 56.5         | 13.2          | 1.8         |
| M             | 12.6        | 3.2           | 3.0           | 13.9         | 3.3           | 1.0         |
| J             | 63.1        | 15.9          | 6.0           | 8.7          | 4.1           | 0.8         |
| J             | 39.8        | 0.6           | 2.5           | 13.9         | 2.5           | 0.8         |
| A             | 50.1        | 8.4           | 3.5           | 10.9         | 2.5           | 1.5         |
| S             | 31.6        | 5.9           | 4.5           | 27.4         | 5.8           | 1.5         |
| O             | 31.6        | 5.5           | 3.5           | 63.9         | 13.2          | 2.3         |
| N             | 25.1        | 0.4           | 5.5           | 90.9         | 19.7          | 2.0         |
| D             | 25.1        | 0.9           | 7.0           | 106.1        | 22.2          | 2.3         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 19.            | 10.8          | 97.6         | 1.1      | 8.               | 59.4  |
| F             | 37.            | 11.8          | 194.6        | 1.0      | 18.              | 50.8  |
| M             | 33.            | 19.3          | 81.8         | 1.0      | 25.              | 24.1  |
| A             | 42.            | 29.3          | 64.9         | 1.0      | 35.              | 16.2  |
| M             | 10.            | 4.3           | 19.7         | 1.1      | 9.               | 16.0  |
| J             | 60.            | 23.6          | 11.3         | 1.0      | 59.              | 1.7   |
| J             | 31.            | 10.7          | 25.4         | 0.9      | 30.              | 5.3   |
| A             | 37.            | 19.3          | 11.3         | 1.1      | 36.              | 3.5   |
| S             | 29.            | 8.6           | 30.2         | 1.1      | 26.              | 11.2  |
| O             | 35.            | 12.3          | 77.3         | 1.0      | 28.              | 21.6  |
| N             | 29.            | 5.4           | 42.3         | 1.9      | 18.              | 37.3  |
| D             | 21.            | 5.6           | 115.7        | 1.2      | 8.               | 61.0  |

STATION : TRURO  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 31.           | 1.                  | 18.9          | 13.4         | 6.7          | BDL/SLD | 5.5  |
| F             | 29.           | 0.                  | 25.6          | 6.9          | 5.2          |         | 5.2  |
| M             | 31.           | 12.                 | 26.4          | 9.4          | 7.1          |         | 4.7  |
| A             | 30.           | 1.                  | 52.6          | 7.3          | 5.8          |         | 4.1  |
| M             | 30.           | 1.                  | 16.9          | 11.0         | 8.4          |         | 4.5  |
| J             | 30.           | 1.                  | 36.8          | 12.1         | 8.5          |         | 4.1  |
| J             | 31.           | 0.                  | 21.1          | 7.8          | 6.8          |         | 4.4  |
| A             | 31.           | 2.                  | 40.8          | 9.0          | 8.2          |         | 4.1  |
| S             | 30.           | 12.                 | 21.9          | 6.3          | 5.3          |         | 4.6  |
| O             | 31.           | 0.                  | 23.6          | 16.5         | 14.4         |         | 4.5  |
| N             | 30.           | 0.                  | 23.2          | 13.4         | 12.1         |         | 4.4  |
| D             | 31.           | 0.                  | 17.6          | 17.6         | 16.5         |         | 4.6  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 3.2         | 11.0          | 11.0          | 64.4         | 11.5          | 3.8         |
| F             | 6.3         | 3.9           | 59.9          | 84.8         | 15.6          | 2.6         |
| M             | 20.0        | 20.1          | 13.0          | 67.9         | 10.7          | 5.6         |
| A             | 79.4        | 37.2          | 13.5          | 46.1         | 10.7          | 1.5         |
| M             | 31.6        | 14.1          | 12.5          | 9.1          | 2.5           | 0.5         |
| J             | 79.4        | 0.9           | 7.0           | 6.5          | 2.5           | 0.3         |
| J             | 39.8        | BDL/SLD       | 3.5           | 7.0          | 0.8           | BDL/SLD     |
| A             | 79.4        | 5.6           | 4.5           | 6.1          | 0.8           | 0.5         |
| S             | 25.1        | 21.3          | 22.5          | 17.4         | 4.1           | 1.0         |
| O             | 31.6        | 6.2           | 3.0           | 45.7         | 10.7          | 1.0         |
| N             | 39.8        | 0.4           | 4.5           | 27.4         | 5.8           | 0.5         |
| D             | 25.1        | 8.2           | 4.5           | 37.4         | 7.4           | 1.0         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 37.            | 10.1          | 71.1         | 0.9      | 30.              | 20.6  |
| F             | 56.            | 13.8          | 95.9         | 1.0      | 46.              | 18.1  |
| M             | 44.            | 15.0          | 73.3         | 1.0      | 36.              | 18.6  |
| A             | 90.            | 45.7          | 50.8         | 1.0      | 84.              | 6.2   |
| M             | 35.            | 7.9           | 8.5          | 1.4      | 34.              | 3.1   |
| J             | 58.            | 21.4          | 8.5          | 1.1      | 58.              | 1.3   |
| J             | 35.            | 8.6           | 11.3         | 0.9      | 35.              | 2.4   |
| A             | 60.            | 18.6          | 11.3         | 1.1      | 60.              | 1.2   |
| S             | 60.            | 14.3          | 17.2         | 1.0      | 58.              | 3.4   |
| O             | 35.            | 7.8           | 53.9         | 1.0      | 30.              | 15.4  |
| N             | 40.            | 1.8           | 16.9         | 1.3      | 36.              | 8.3   |
| D             | 25.            | 7.1           | 33.9         | 1.3      | 21.              | 17.9  |



STATION : GANDER  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 29.           | 1.                  | 11.3          | 12.1         | 6.5          |         | 4.8  |
| F             | 28.           | 1.                  | 7.7           | 4.0          | 3.7          |         | 5.4  |
| M             | 32.           | 0.                  | 12.6          | 19.3         | 8.7          | BDL/SLD | 5.2  |
| A             | 29.           | 1.                  | 33.2          | 5.1          | 2.9          |         | 4.5  |
| M             | 31.           | 12.                 | 15.1          | 12.7         | 10.2         |         | 4.5  |
| J             | 0.            |                     |               |              |              |         |      |
| J             | 32.           | 0.                  | 13.5          | 6.0          | 4.3          |         | 4.7  |
| A             | 30.           | 0.                  | 43.0          | 9.9          | 8.4          |         | 4.8  |
| S             | 30.           | 0.                  | 12.6          | 12.3         | 10.7         |         | 4.8  |
| O             | 31.           | 0.                  | 8.9           | 20.9         | 18.7         |         | 5.1  |
| N             | 30.           | 0.                  | 16.1          | 13.0         | 8.1          |         | 4.8  |
| D             | 32.           | 12.                 | 14.5          | 13.0         | 6.8          |         | 5.2  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 15.8        | 6.3           | 3.5           | 16.1         | 3.3           | 0.8         |
| F             | 4.0         | 9.9           | 6.0           | 16.5         | 3.3           | 1.0         |
| M             | 6.3         | 16.8          | 6.0           | 42.6         | 7.4           | 1.3         |
| A             | 31.6        | 31.0          | 13.5          | 64.8         | 14.0          | 1.8         |
| M             | 31.6        | 8.4           | 3.0           | 9.1          | 2.5           | 0.3         |
| J             |             |               |               |              |               |             |
| J             | 20.0        | 5.5           | 5.0           | 8.3          | 1.6           | 1.8         |
| A             | 15.8        | 6.6           | 4.0           | 14.8         | 3.3           | 0.8         |
| S             | 15.8        | 1.6           | 3.5           | 19.6         | 4.1           | 0.5         |
| O             | 7.9         | 0.9           | 2.0           | 23.5         | 4.9           | BDL/SLD     |
| N             | 15.8        | 11.1          | 4.5           | 41.8         | 9.0           | 1.5         |
| D             | 6.3         | 14.3          | 4.5           | 41.3         | 7.4           | 2.3         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 15.            | 3.9           | 16.1         | 1.3      | 13.              | 13.2  |
| F             | 19.            | 2.9           | 16.9         | 1.1      | 17.              | 10.6  |
| M             | 27.            | 2.9           | 53.6         | 1.0      | 22.              | 18.8  |
| A             | 67.            | 22.8          | 64.9         | 1.0      | 59.              | 11.6  |
| M             | 23.            | 6.4           | 11.3         | 1.4      | 22.              | 4.8   |
| J             |                |               |              |          |                  |       |
| J             | 23.            | 10.7          | 11.3         | 0.9      | 22.              | 4.3   |
| A             | BDL/SLD        | 5.0           | 11.3         |          | BDL/SLD          |       |
| S             | 23.            | 2.9           | 21.7         | 1.0      | 21.              | 10.2  |
| O             | 8.             | 2.6           | 24.3         | 1.1      | 6.               | 33.7  |
| N             | 25.            | 3.9           | 155.1        | 0.5      | 20.              | 20.0  |
| D             | 12.            | 1.9           | 39.5         | 1.4      | 8.               | 39.6  |

STATION : GOOSE  
 1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK     | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|---------|------|
| J             | 30.           | 1.                  | 12.8          | 9.4          | 3.3          | 1.3     | 6.4  |
| F             | 28.           | 1.                  | 9.0           | 6.7          | 4.3          |         | 5.0  |
| M             | 31.           | 0.                  | 6.4           | 10.7         | 6.6          | 0.2     | 6.1  |
| A             | 30.           | 0.                  | 5.9           | 11.6         | 4.6          | BDL/SLD | 5.6  |
| M             | 31.           | 12.                 | 8.2           | 7.5          | 6.7          |         | 4.9  |
| J             | 30.           | 0.                  | 7.7           | 13.3         | 16.3         |         | 5.0  |
| J             | 31.           | 2.                  | 4.4           | 16.1         | 14.4         | BDL/SLD | 5.2  |
| A             | 31.           | 2.                  | 10.6          | 9.4          | 7.9          |         | 4.8  |
| S             | 30.           | 0.                  | 6.7           | 12.7         | 12.7         |         | 5.2  |
| O             | 31.           | 0.                  | 6.3           | 10.5         | 8.7          | BDL/SLD | 5.3  |
| N             | 31.           | 0.                  | 8.7           | 7.6          | 4.0          | BDL/SLD | 5.5  |
| D             | 0.            |                     |               |              |              |         |      |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 0.4         | 9.6           | 5.0           | 45.7         | 1.6           | 26.1        |
| F             | 10.0        | 2.0           | 3.0           | 16.5         | BDL/SLD       | 1.8         |
| M             | 0.8         | 0.7           | 4.0           | 17.4         | 2.5           | 0.8         |
| A             | 2.5         | 5.1           | 5.5           | 13.5         | 1.6           | 3.6         |
| M             | 12.6        | 2.1           | 5.0           | 9.6          | 0.8           | 2.3         |
| J             | 10.0        | BDL/SLD       | 3.0           | 5.7          | 0.8           | 2.3         |
| J             | 6.3         | BDL/SLD       | 1.5           | 4.8          | BDL/SLD       | 1.0         |
| A             | 15.8        | 2.5           | 4.0           | 5.7          | 1.6           | 1.3         |
| S             | 6.3         | BDL/SLD       | 2.5           | 15.7         | 0.8           | 1.3         |
| O             | 5.0         | 0.6           | 4.5           | 12.2         | 1.6           | 3.1         |
| N             | 3.2         | 4.1           | 4.5           | 25.2         | 1.6           | 14.3        |
| D             |             |               |               |              |               |             |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 12.            | 4.6           | 35.5         | 1.1      | 7.               | 43.7  |
| F             | 21.            | 5.7           | 5.6          | 1.0      | 19.              | 9.5   |
| M             | 8.             | 1.4           | 25.4         | 0.7      | 6.               | 25.0  |
| A             | 33.            | 4.3           | 11.3         | 0.6      | 32.              | 4.8   |
| M             | 17.            | 0.7           | 8.5          | 1.3      | 16.              | 6.9   |
| J             | 17.            | BDL/SLD       | 8.5          | 0.9      | 16.              | 4.1   |
| J             | 12.            | 0.7           | 8.5          | 0.7      | 12.              | 4.6   |
| A             | 12.            | 4.3           | 5.6          | 1.4      | 12.              | 5.4   |
| S             | 21.            | BDL/SLD       | 8.5          | 0.9      | 19.              | 9.0   |
| O             | 10.            | BDL/SLD       | 2.8          | 2.0      | 9.               | 14.0  |
| N             | 10.            | 3.1           | 11.3         | 2.1      | 7.               | 29.0  |
| D             |                |               |              |          |                  |       |



STATION : STEPHENVILLE  
1981

| MONTH<br>MOIS | DAYS<br>JOURS | COMMENT<br>REMARQUE | COND<br>US/CM | PREC S<br>CM | PREC C<br>CM | ALK | PH L |
|---------------|---------------|---------------------|---------------|--------------|--------------|-----|------|
| J             | 31.           | 1.                  | 61.6          | 9.3          | 3.2          | 0.6 | 6.0  |
| F             | 28.           | 2.                  | 26.5          | 4.1          | 3.1          | 1.1 | 6.5  |
| M             | 31.           | 12.                 | 23.8          | 4.9          | 3.3          |     | 4.8  |
| A             | 30.           | 12.                 | 38.9          | 13.6         | 6.8          |     | 4.4  |
| M             | 0.            |                     |               |              |              |     |      |
| J             | 0.            |                     |               |              |              |     |      |
| J             | 29.           | 27.                 | 7.8           | 13.0         | 11.9         |     | 5.0  |
| A             | 30.           | 0.                  | 31.3          | 11.2         | 9.3          |     | 4.3  |
| S             | 30.           | 0.                  | 19.3          | 9.1          | 9.4          |     | 4.8  |
| O             | 31.           | 0.                  | 14.1          | 11.7         | 10.2         |     | 5.0  |
| N             | 30.           | 0.                  | 35.3          | 11.7         | 10.6         |     | 4.5  |
| D             | 32.           | 0.                  | 21.3          | 15.1         | 11.1         |     | 4.8  |

| MONTH<br>MOIS | H+<br>UEQ/L | NH4+<br>UEQ/L | CA++<br>UEQ/L | NA+<br>UEQ/L | MG++<br>UEQ/L | K+<br>UEQ/L |
|---------------|-------------|---------------|---------------|--------------|---------------|-------------|
| J             | 1.0         | BDL/SLD       | 51.9          | 328.8        | 75.7          | 8.2         |
| F             | 0.3         | 0.1           | 37.4          | 123.5        | 30.4          | 5.1         |
| M             | 15.8        | 1.7           | 15.5          | 73.5         | 14.8          | 1.8         |
| A             | 39.8        | 0.6           | 16.5          | 124.8        | 23.9          | 4.9         |
| M             |             |               |               |              |               |             |
| J             |             |               |               |              |               |             |
| J             | 10.0        | BDL/SLD       | 4.5           | 11.7         | 1.6           | 0.5         |
| A             | 50.1        | BDL/SLD       | 7.0           | 18.7         | 2.5           | BDL/SLD     |
| S             | 15.8        | BDL/SLD       | 7.5           | 70.5         | 12.3          | 2.8         |
| O             | 10.0        | 0.2           | 5.0           | 41.3         | 6.6           | 1.0         |
| N             | 31.6        | 0.5           | 9.0           | 135.3        | 27.1          | 2.8         |
| D             | 15.8        | 0.1           | 6.0           | 90.9         | 14.8          | 1.3         |

| MONTH<br>MOIS | SO4 =<br>UEQ/L | NO3-<br>UEQ/L | CL-<br>UEQ/L | IONB +/- | SO4 = C<br>UEQ/L | COR % |
|---------------|----------------|---------------|--------------|----------|------------------|-------|
| J             | 67.            | 2.2           | 367.8        | 1.0      | 27.              | 59.1  |
| F             | 42.            | 0.7           | 143.9        | 0.9      | 27.              | 35.5  |
| M             | 35.            | 0.7           | 81.8         | 1.0      | 27.              | 24.9  |
| A             | 58.            | 1.4           | 135.4        | 1.1      | 43.              | 25.6  |
| M             |                |               |              |          |                  |       |
| J             |                |               |              |          |                  |       |
| J             | 19.            | 1.4           | 11.3         | 0.9      | 17.              | 7.5   |
| A             | 54.            | 3.6           | 16.9         | 1.1      | 52.              | 4.1   |
| S             | 27.            | BDL/SLD       | 75.3         | 1.1      | 19.              | 31.2  |
| O             | 15.            | 1.1           | 42.3         | 1.1      | 10.              | 33.9  |
| N             | 35.            | 1.0           | 146.7        | 1.1      | 19.              | 45.7  |
| D             | 19.            | BDL/SLD       | 87.4         | 1.2      | 8.               | 58.1  |

ANNEXE III

GRAPHIQUES DES DONNÉES MENSUELLES OBSERVÉES

(VOIR SECTIONS 3.2 ET 3.3)

APPENDIX III

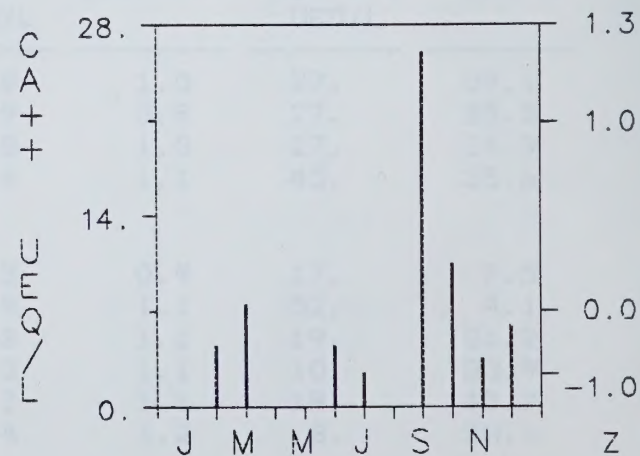
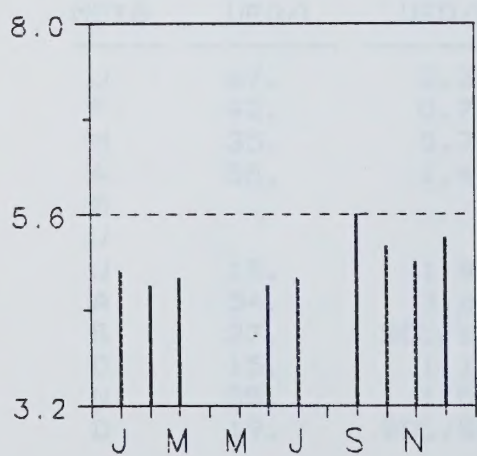
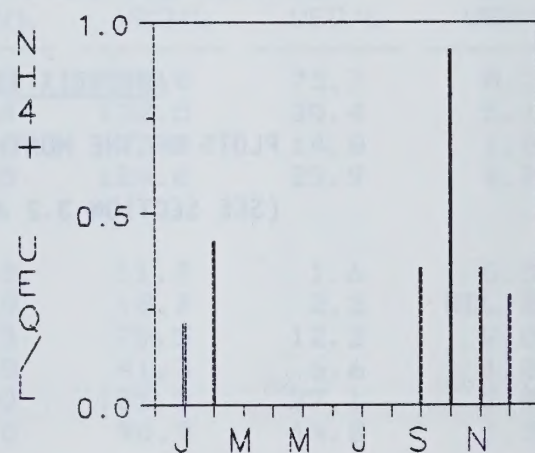
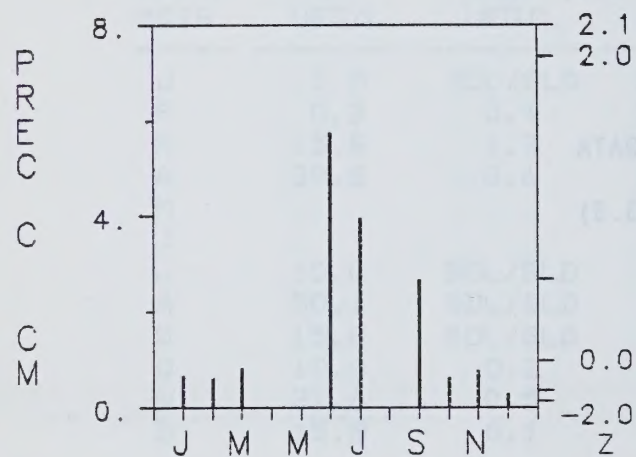
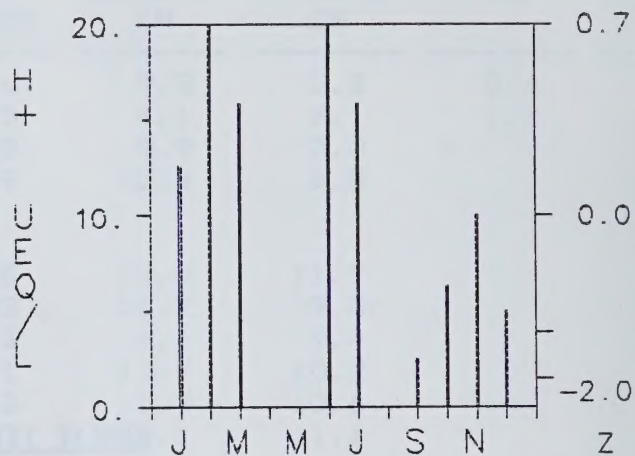
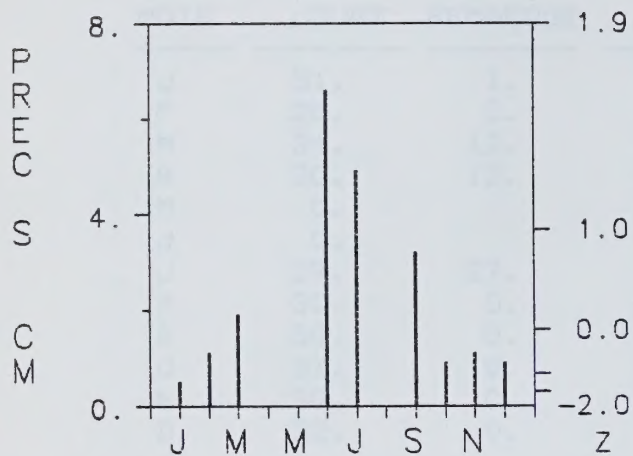
PLOTS OF THE MONTHLY DATA

(SEE SECTION 3.2 AND 3.3)



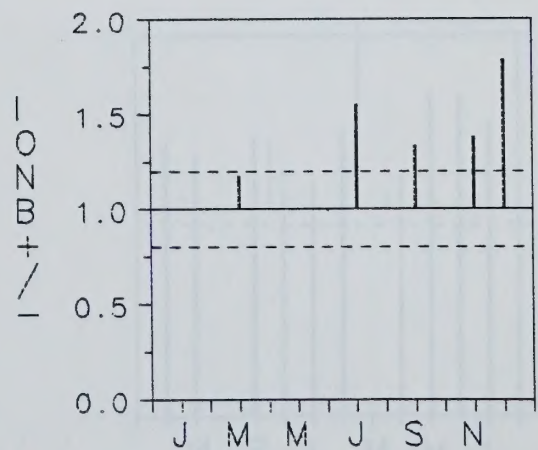
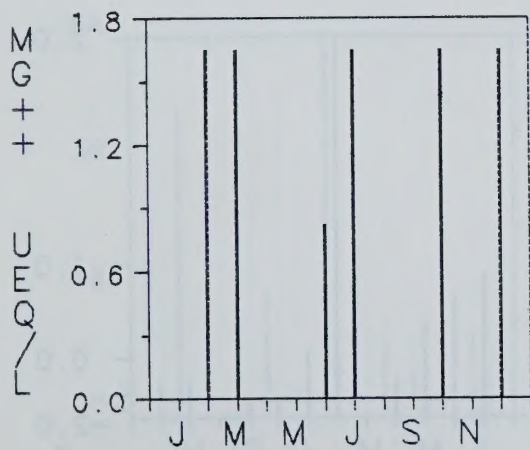
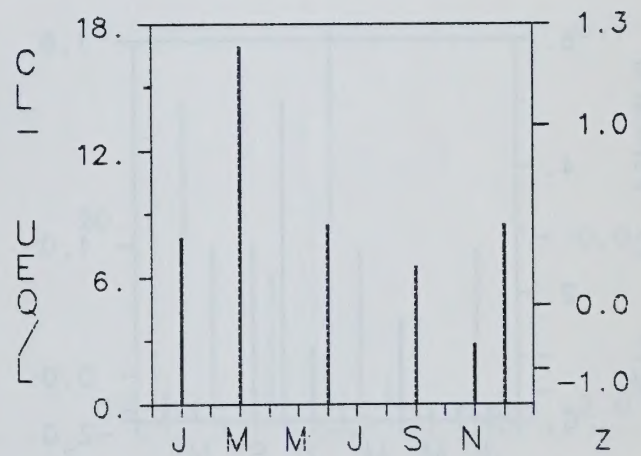
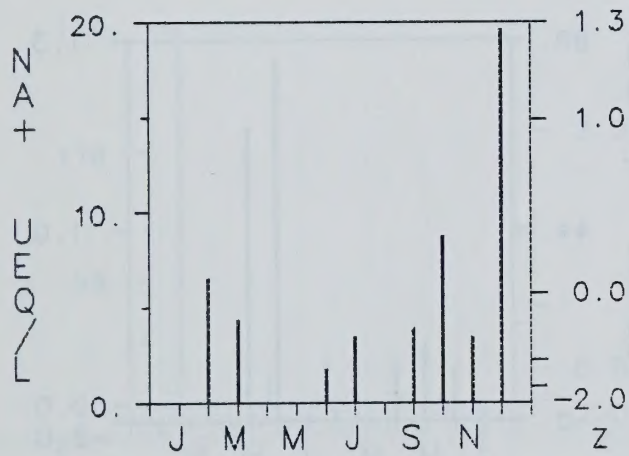
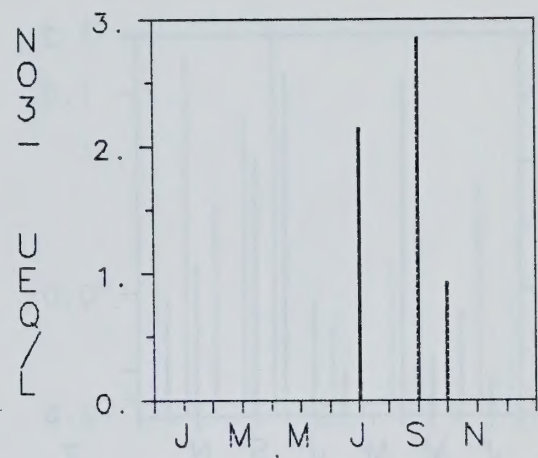
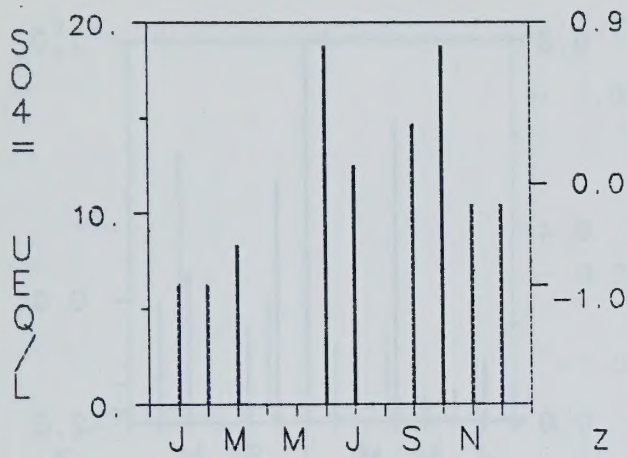
## FORT RELIANCE

1981



## FORT RELIANCE

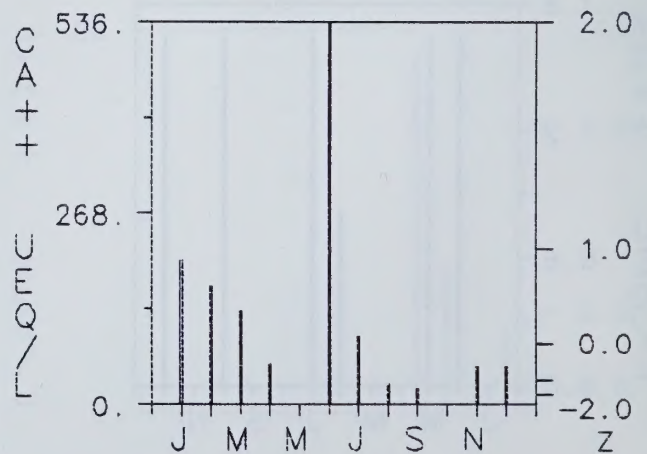
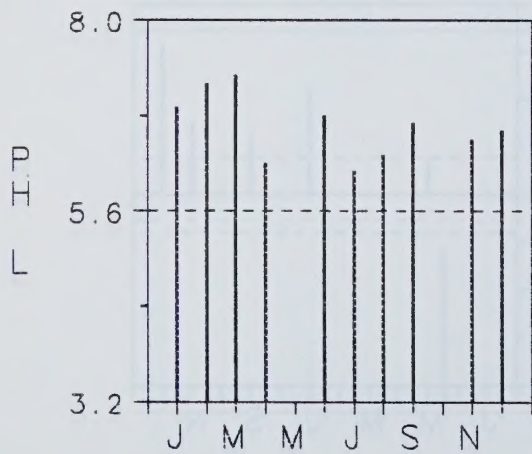
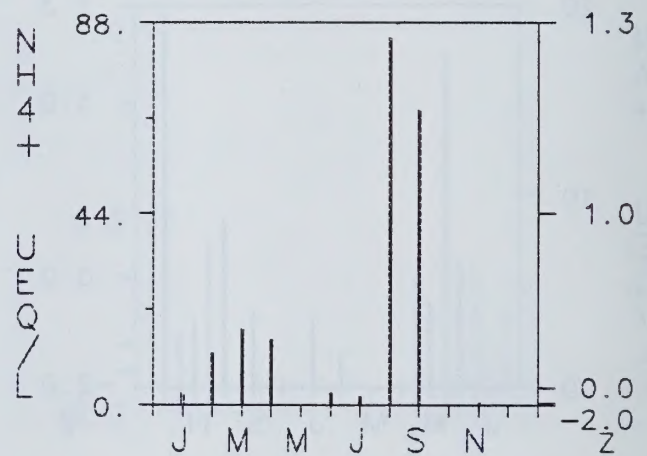
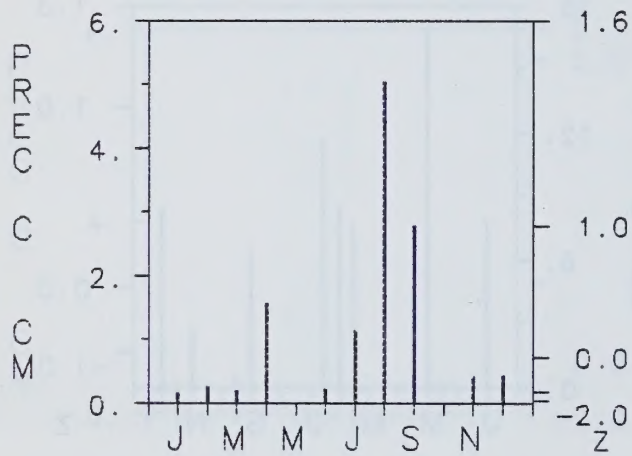
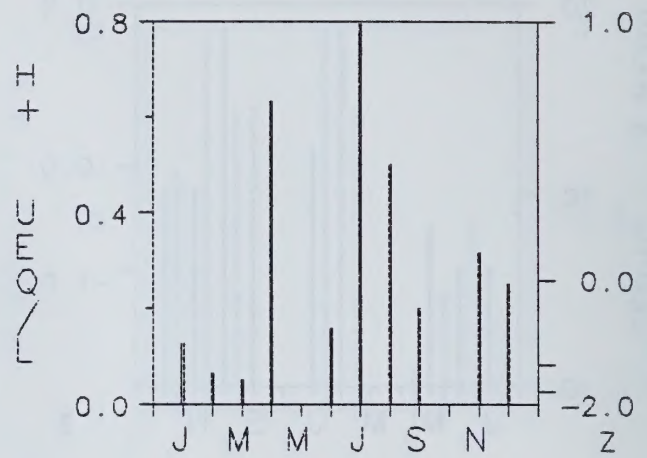
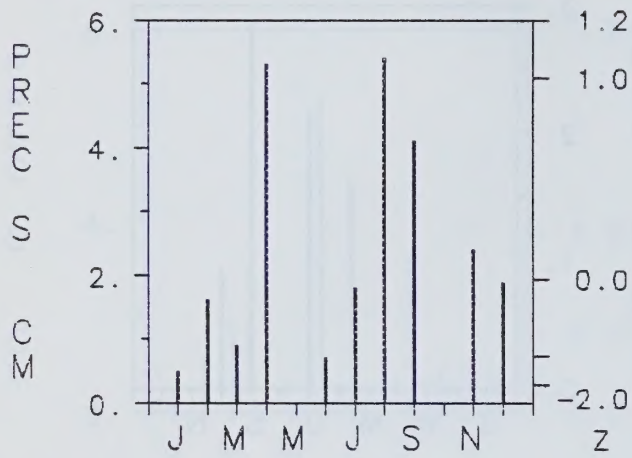
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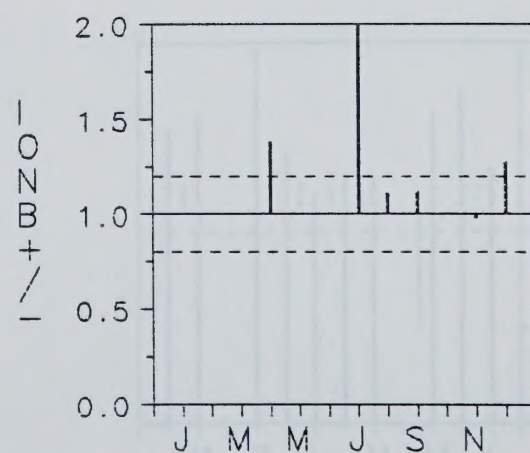
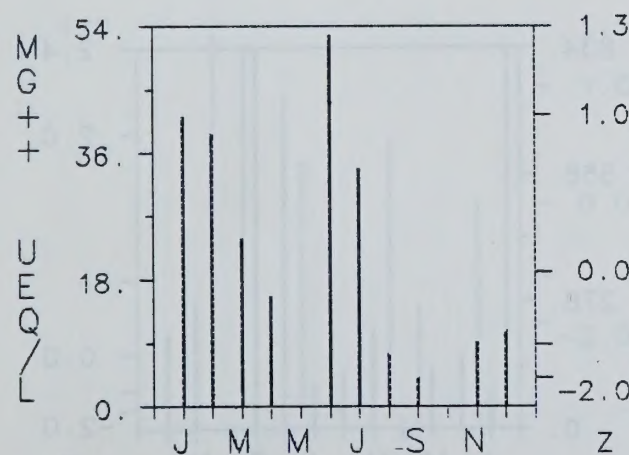
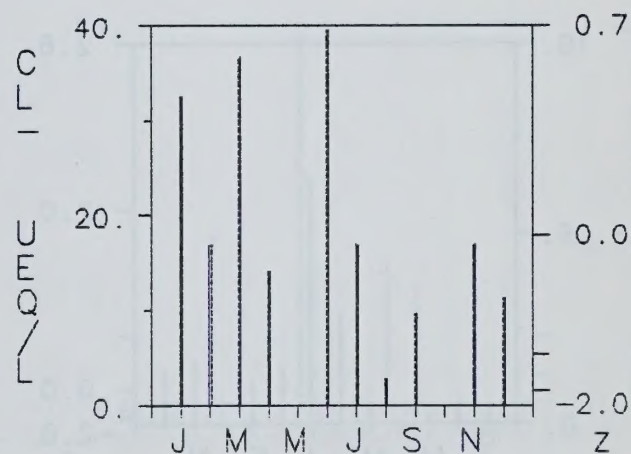
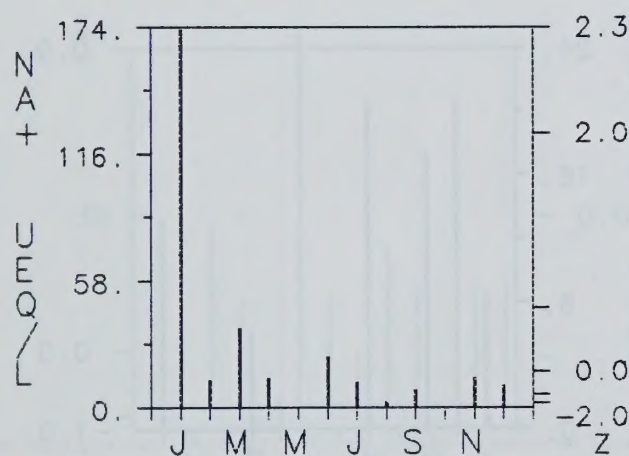
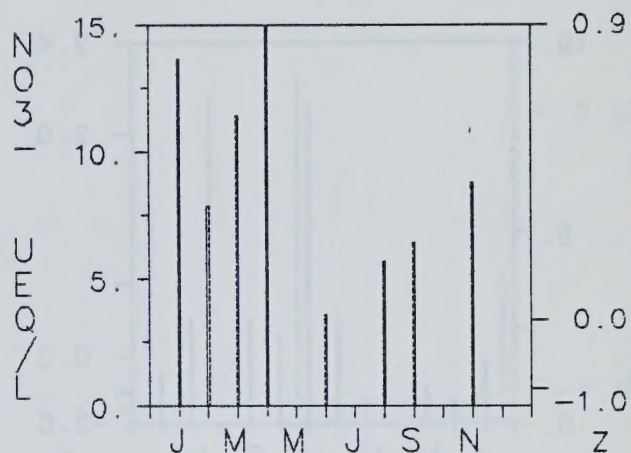
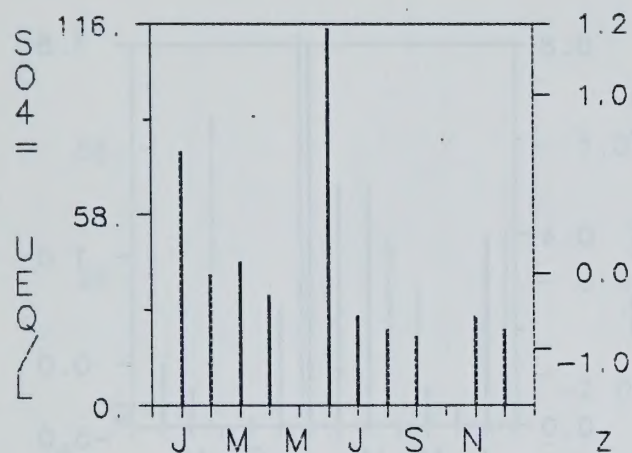
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## HAY RIVER

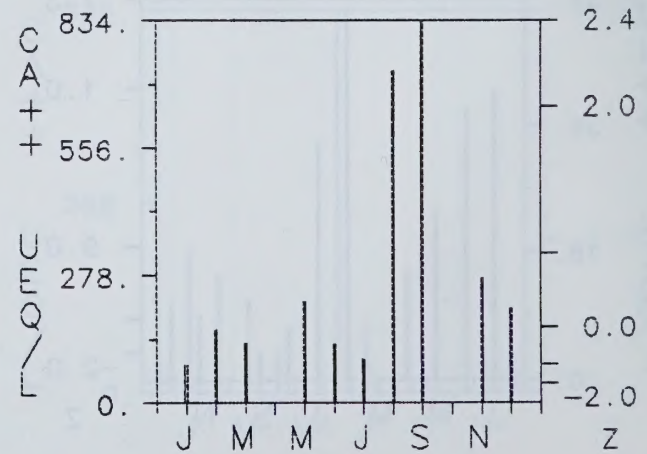
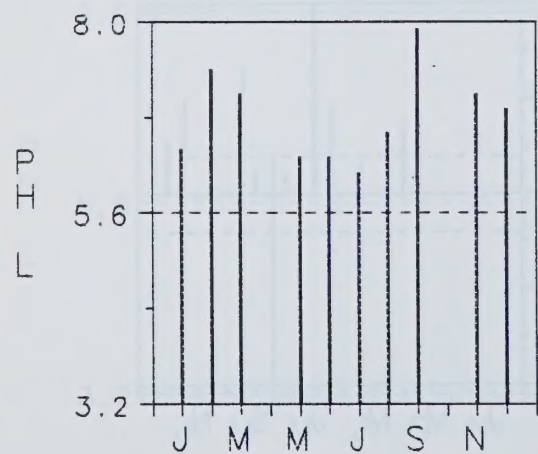
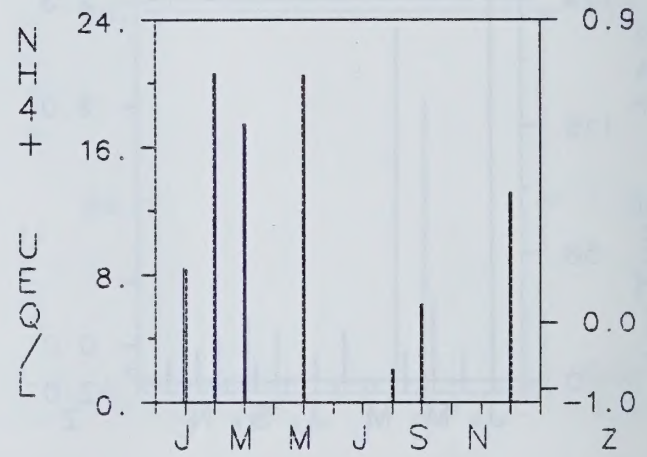
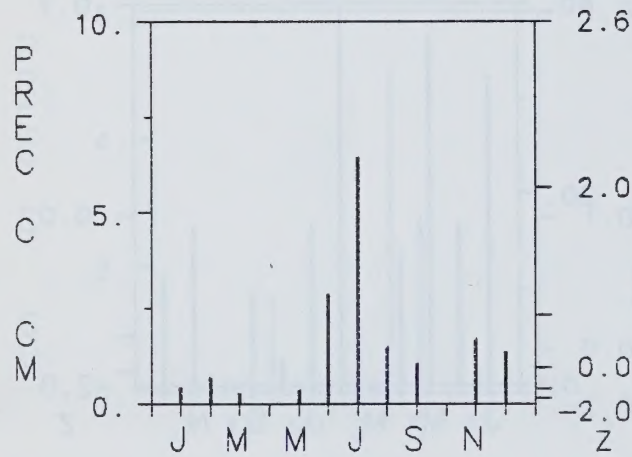
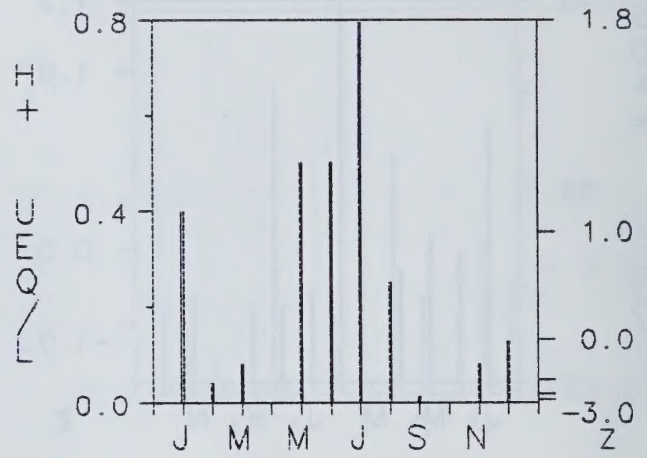
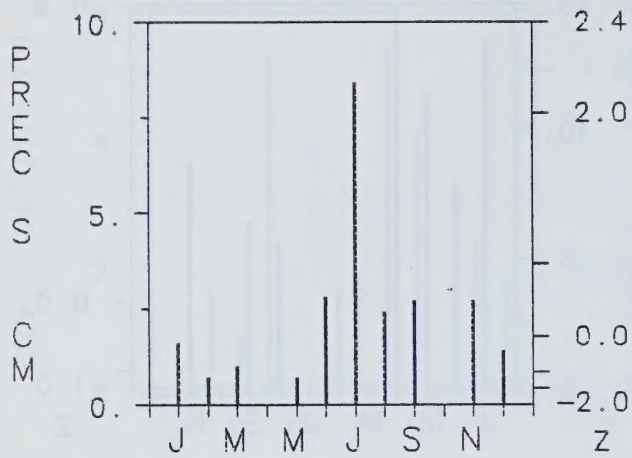
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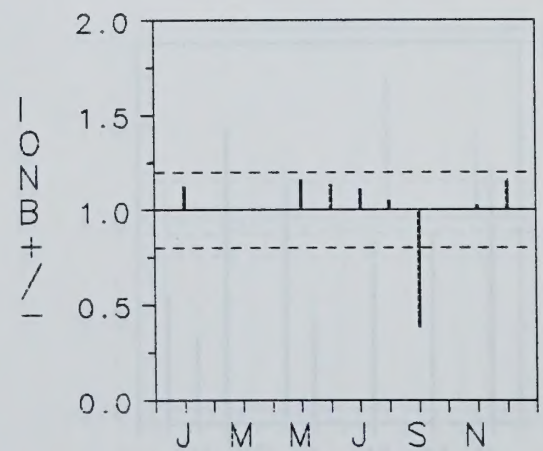
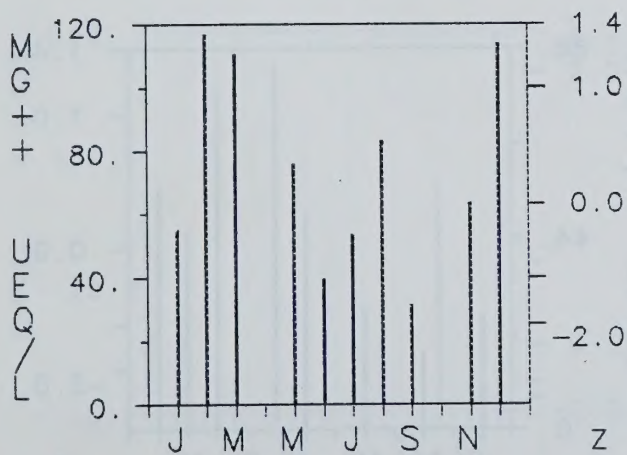
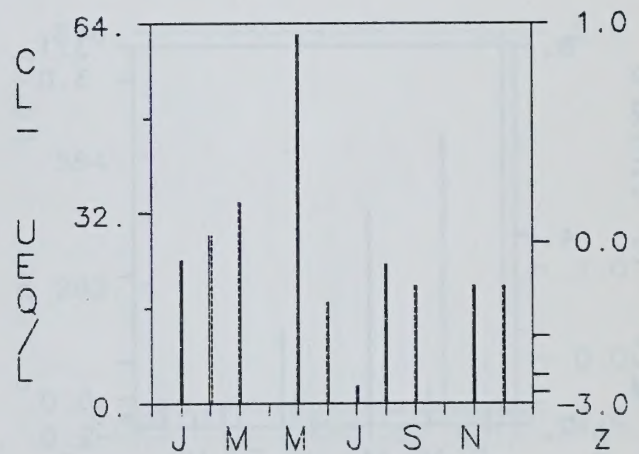
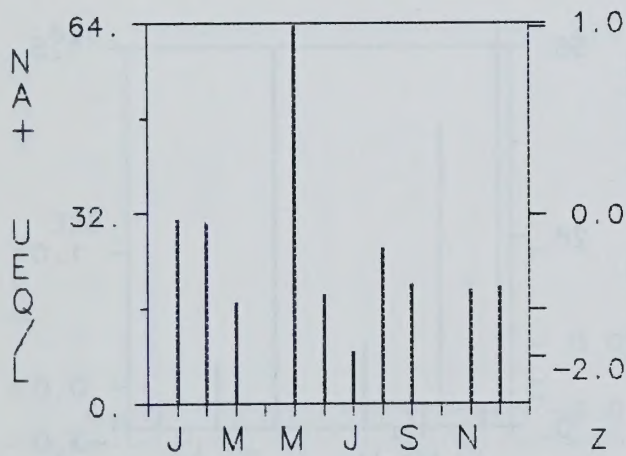
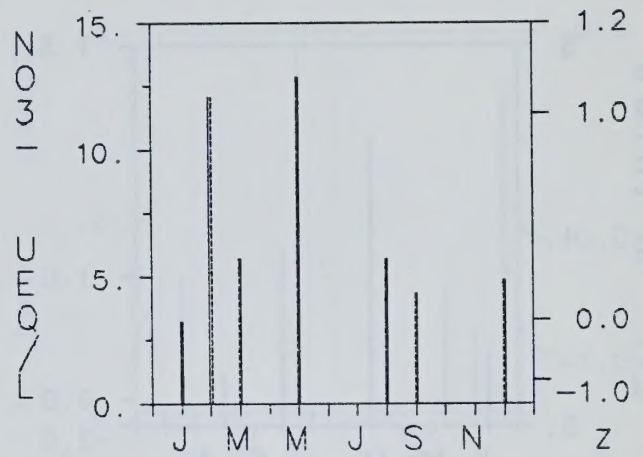
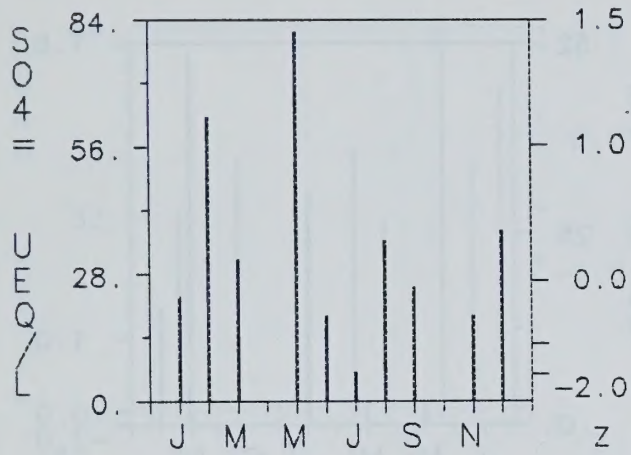
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# 111 INUVIK

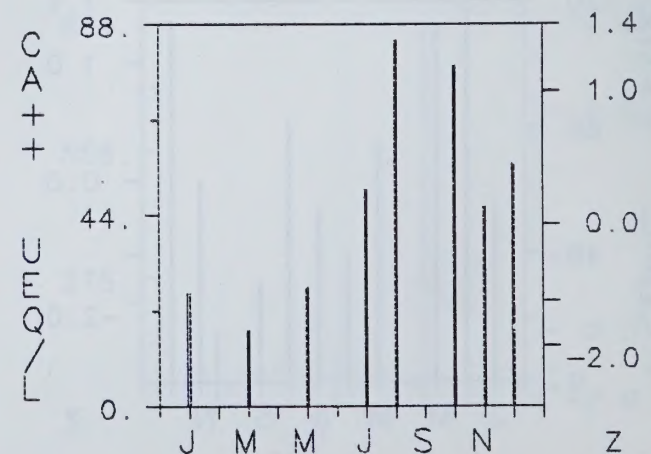
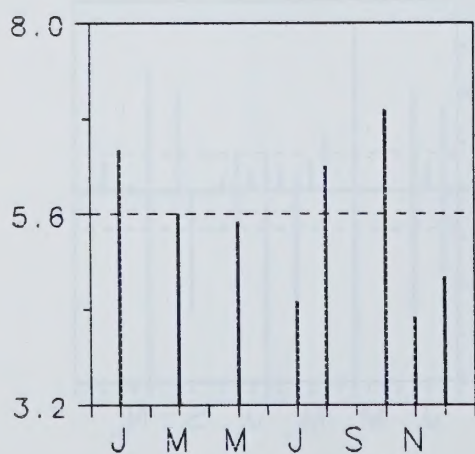
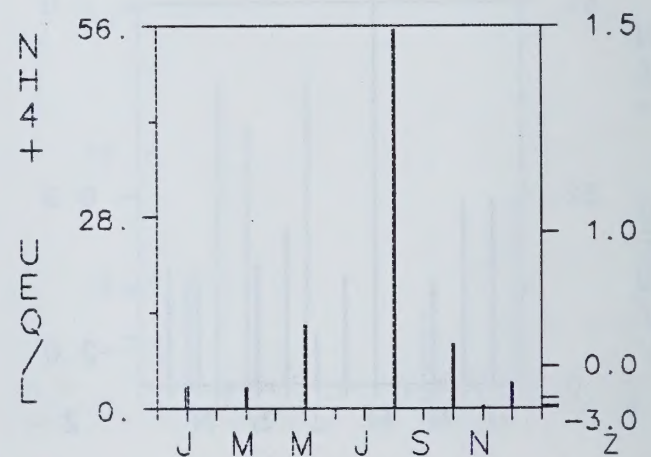
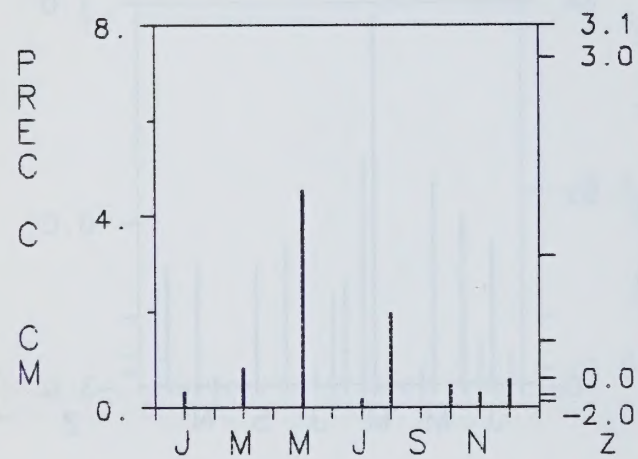
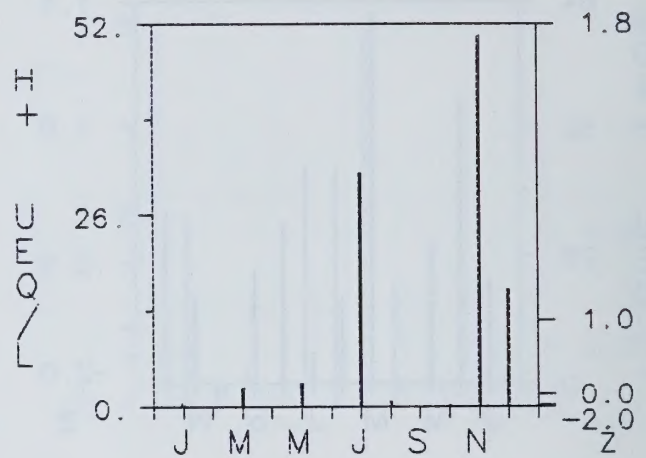
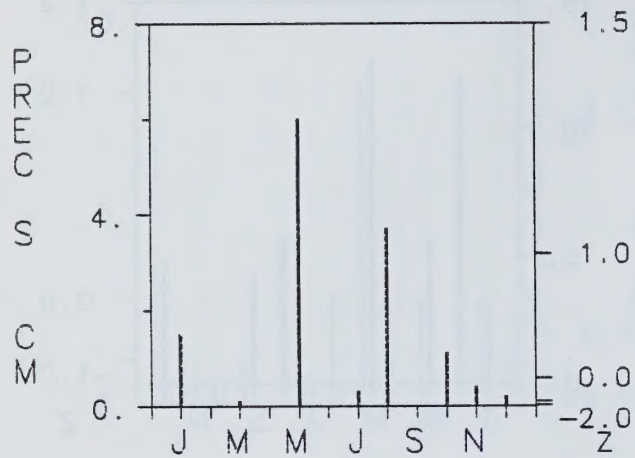
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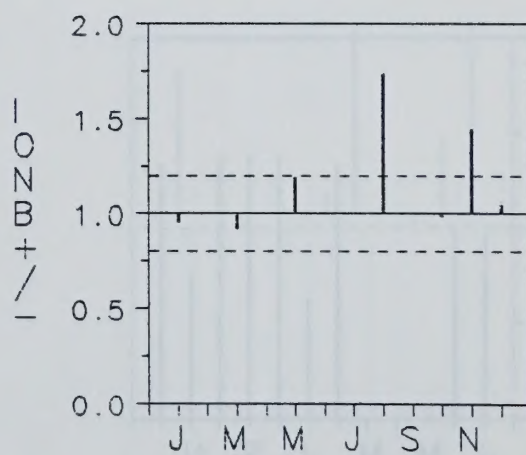
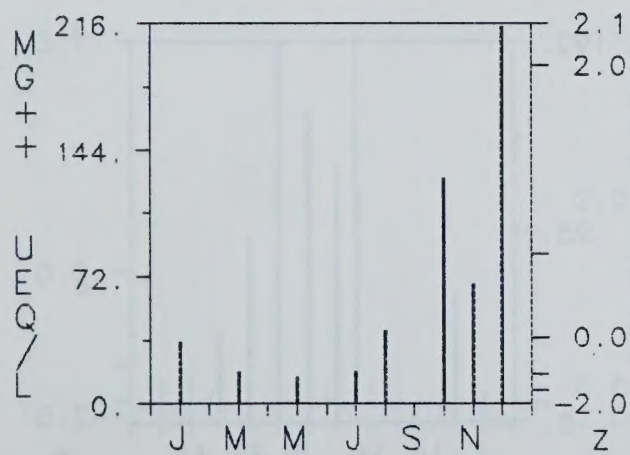
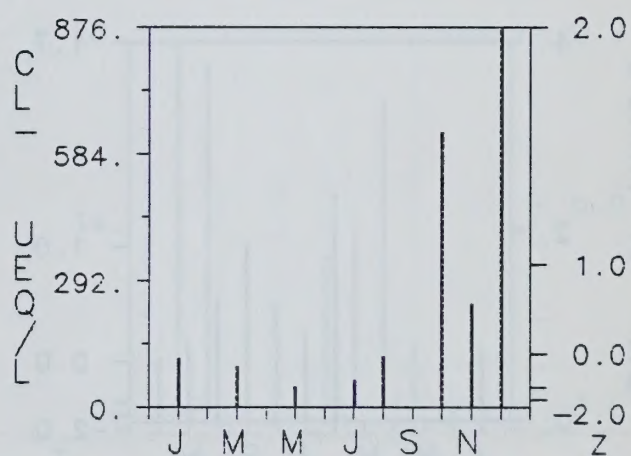
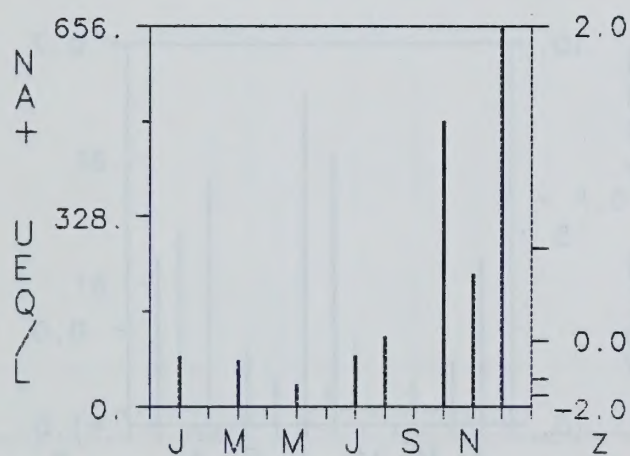
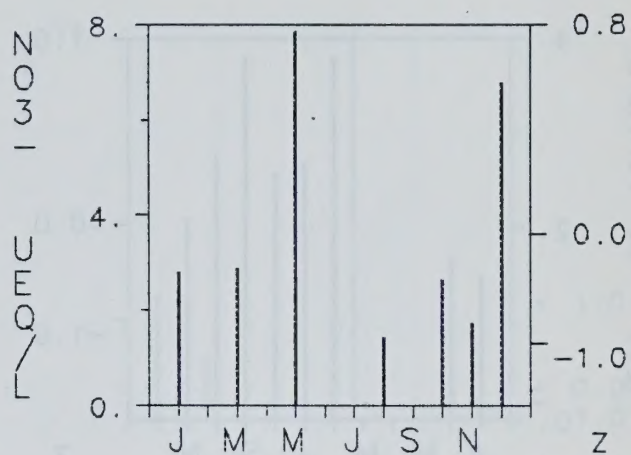
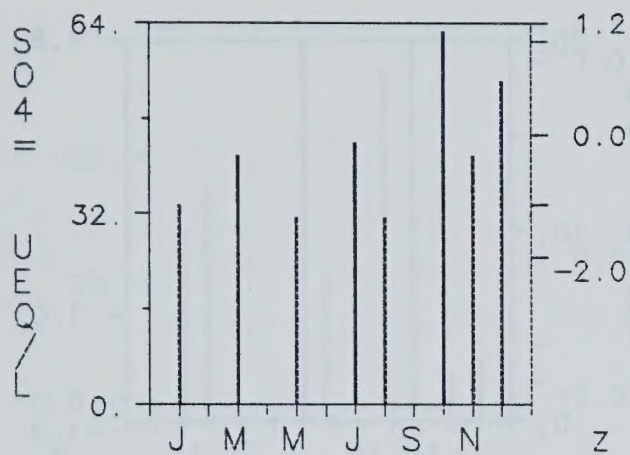
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## MOULD BAY

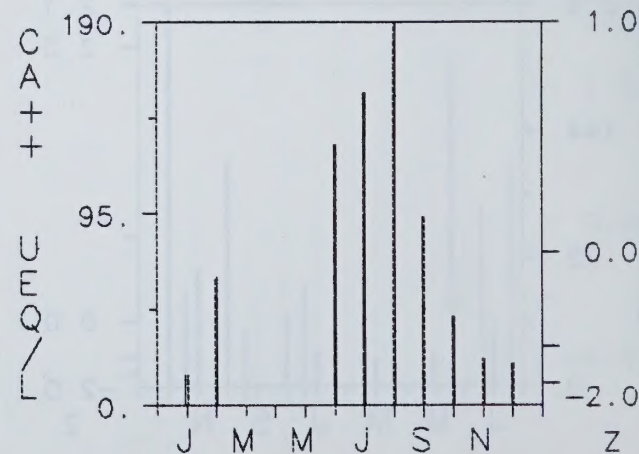
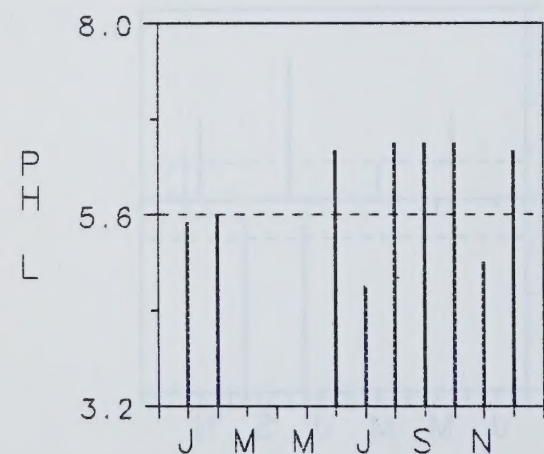
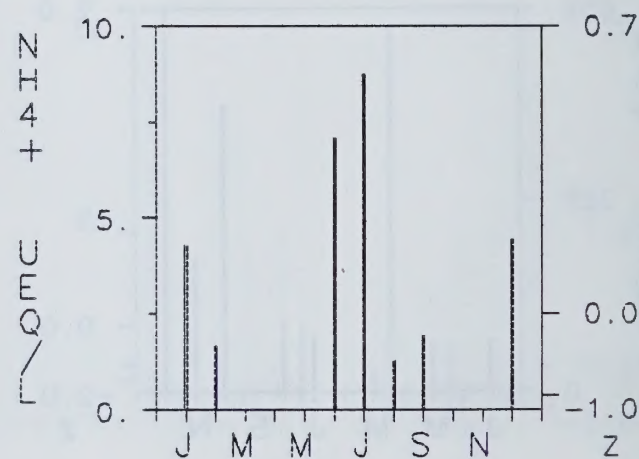
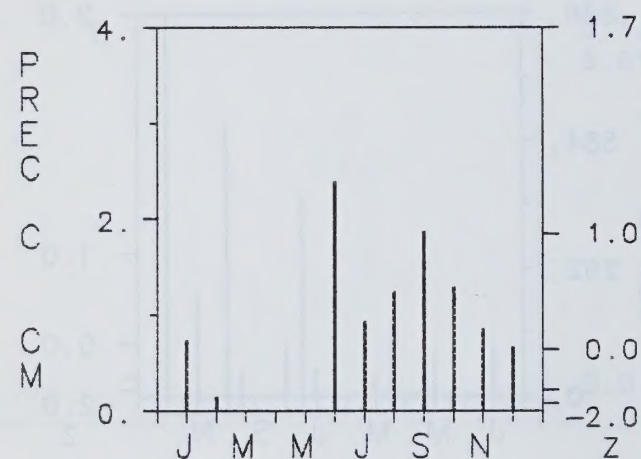
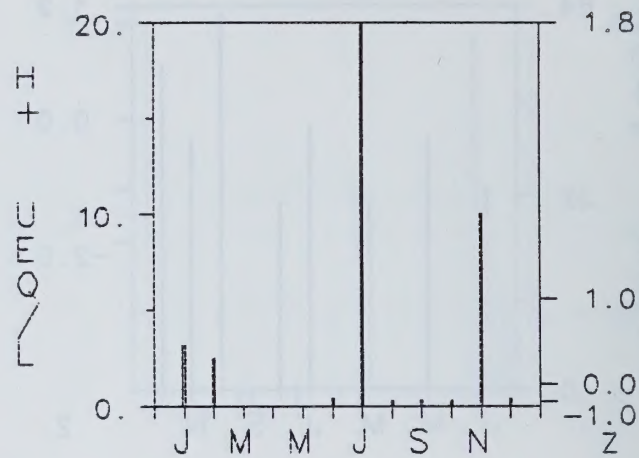
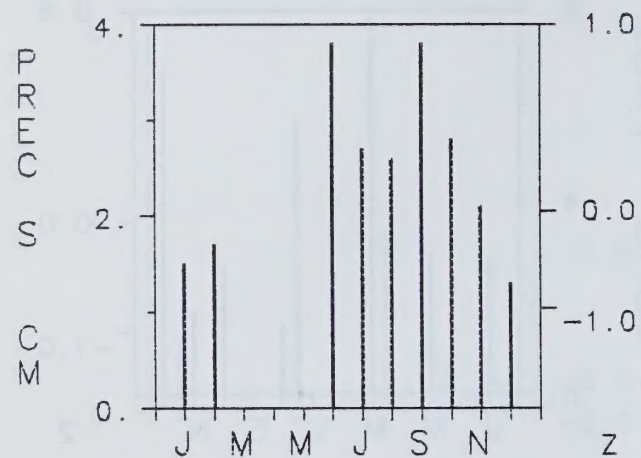
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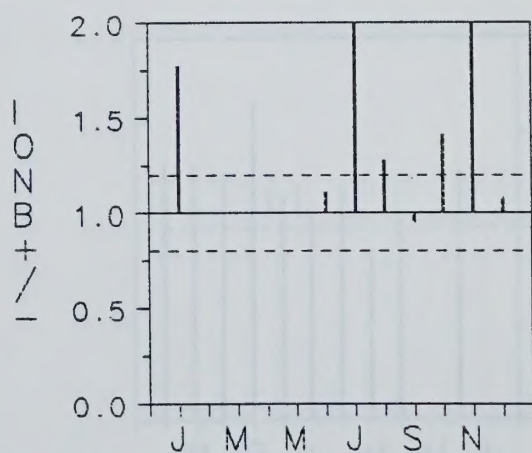
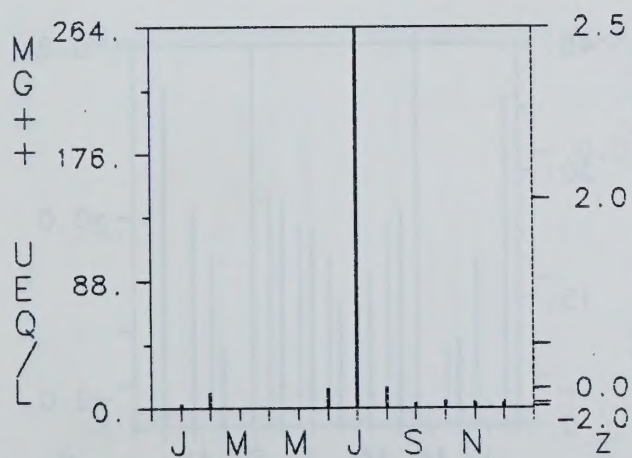
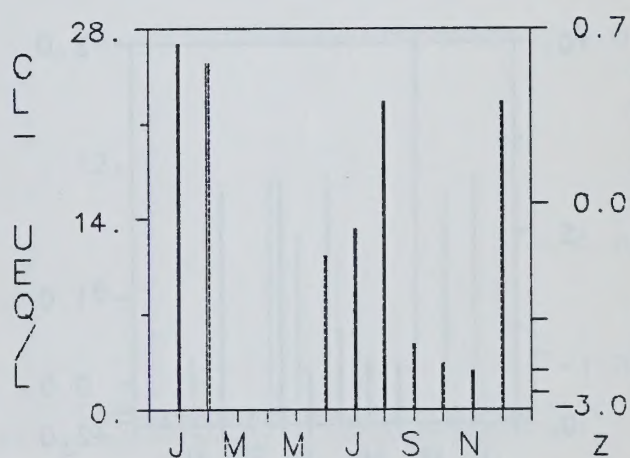
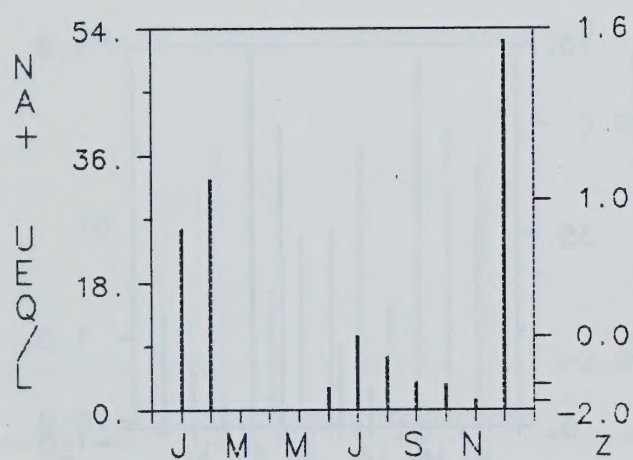
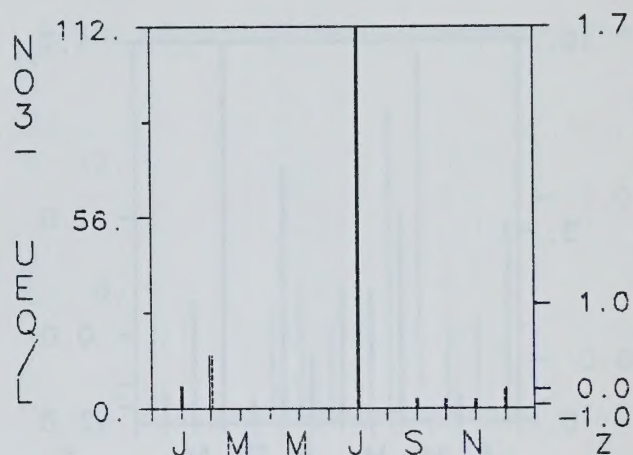
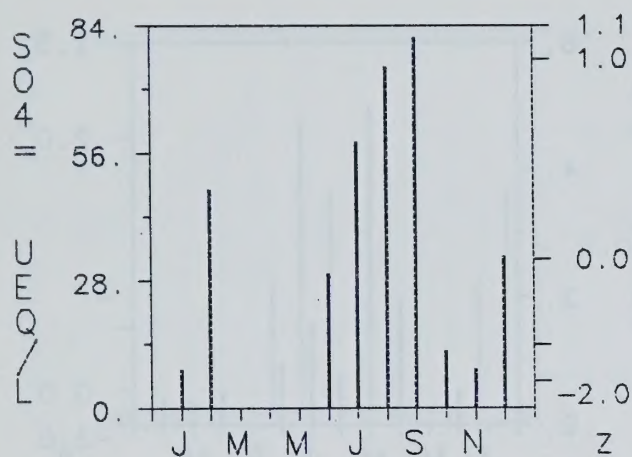
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## WHITEHORSE

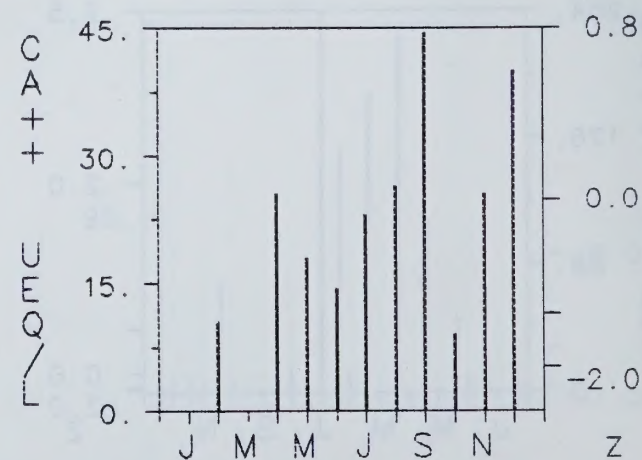
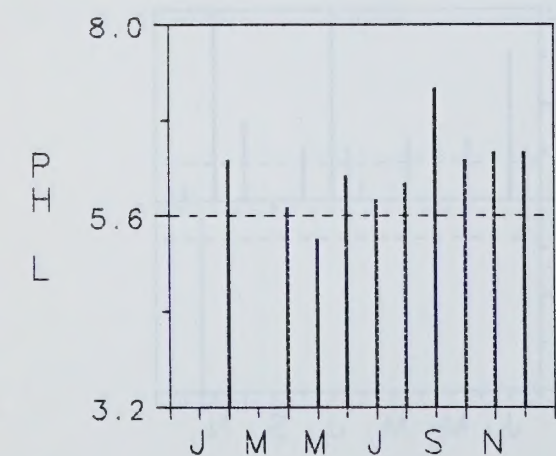
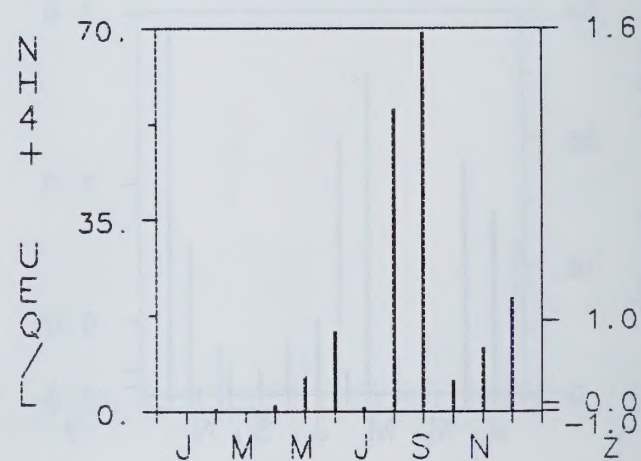
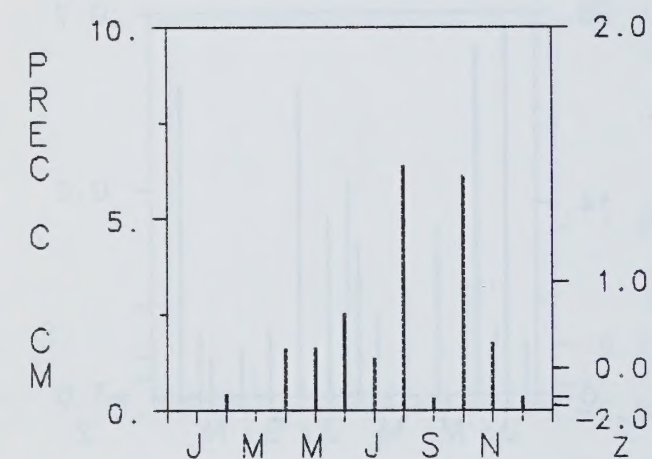
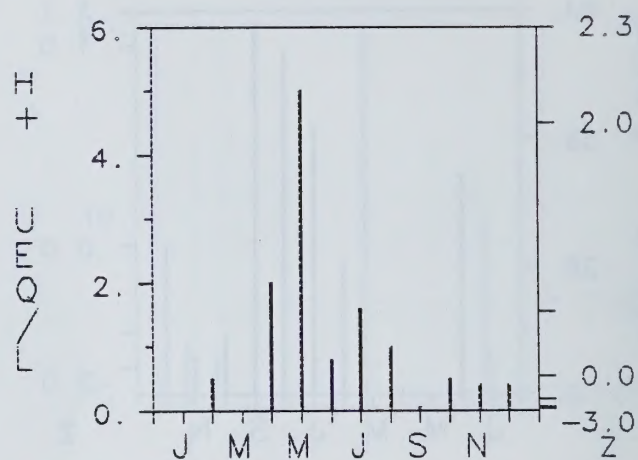
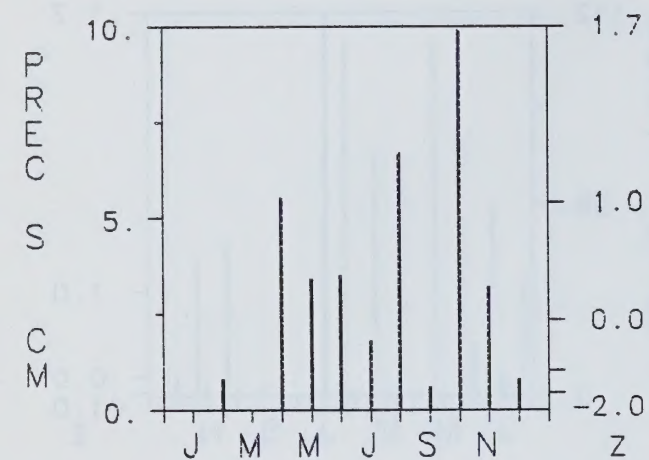
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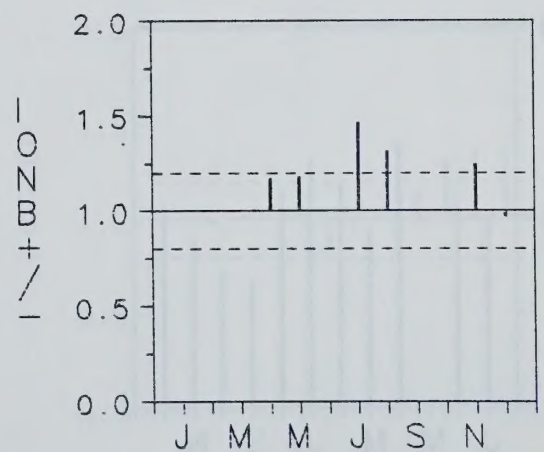
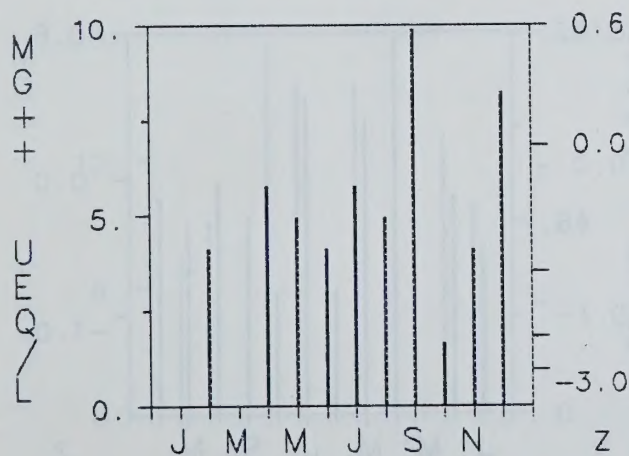
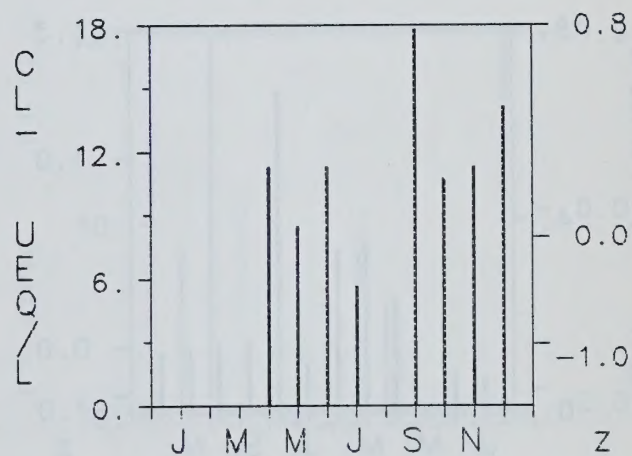
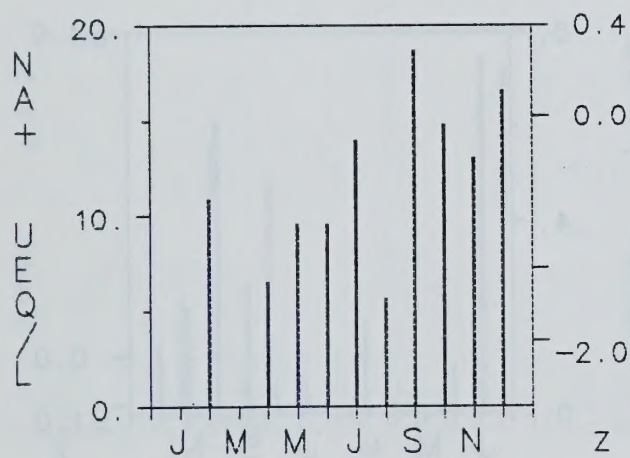
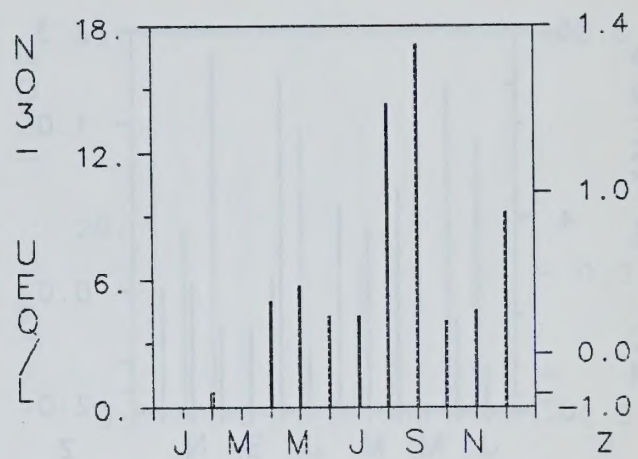
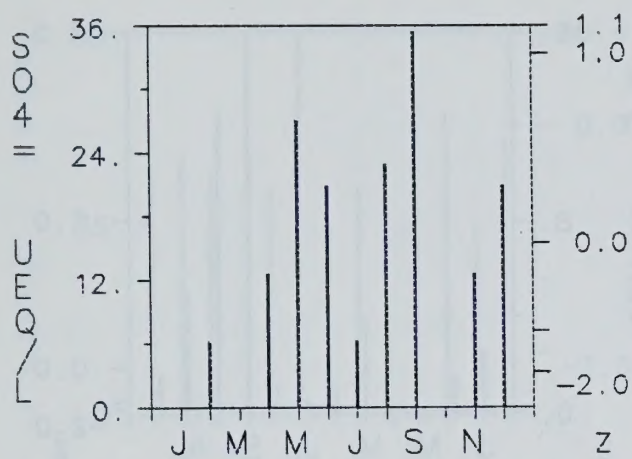
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## FORT NELSON

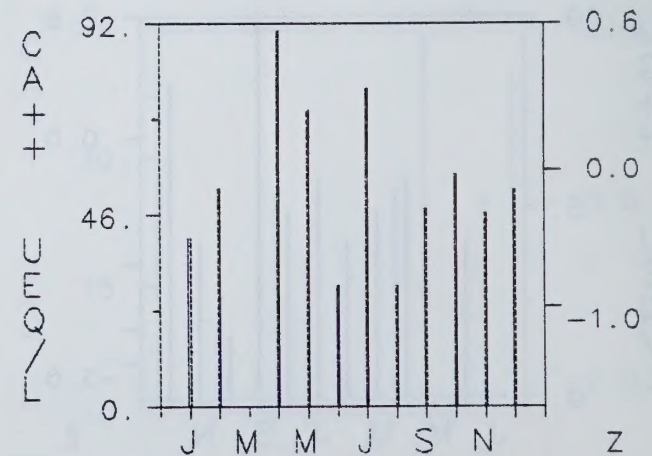
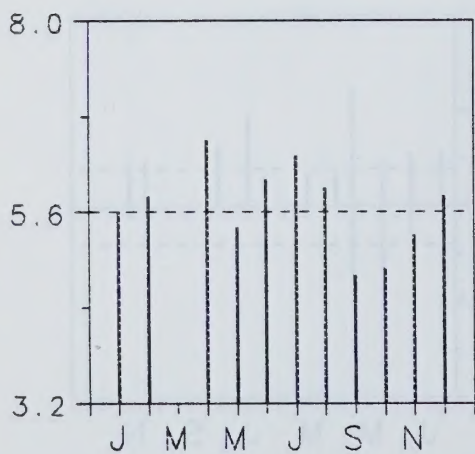
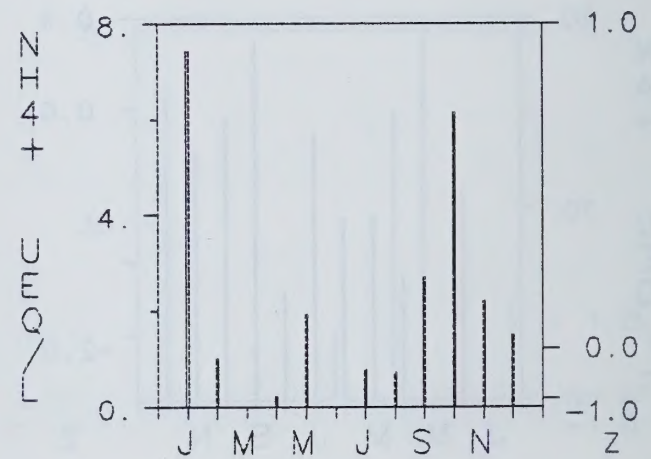
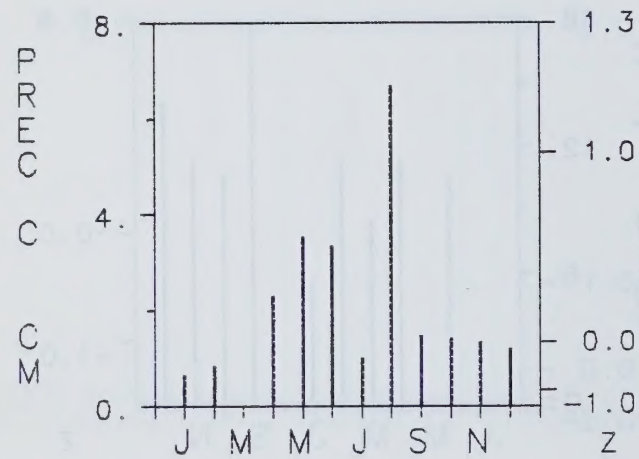
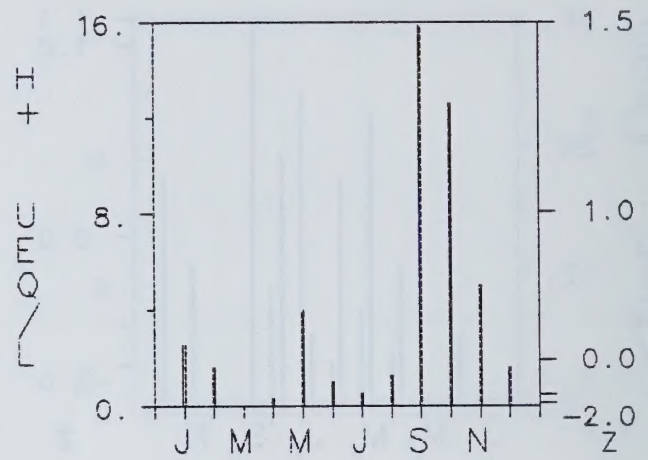
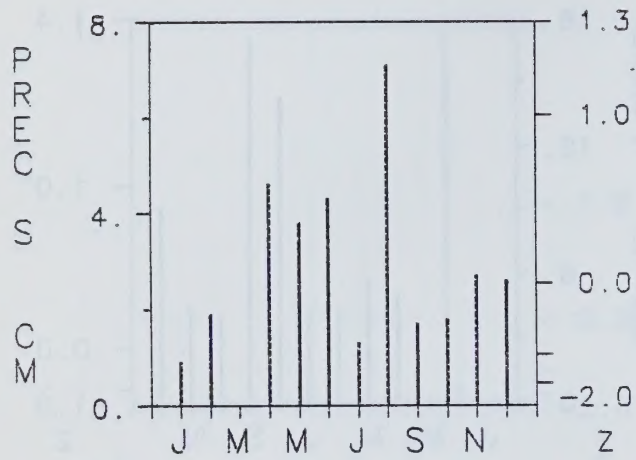
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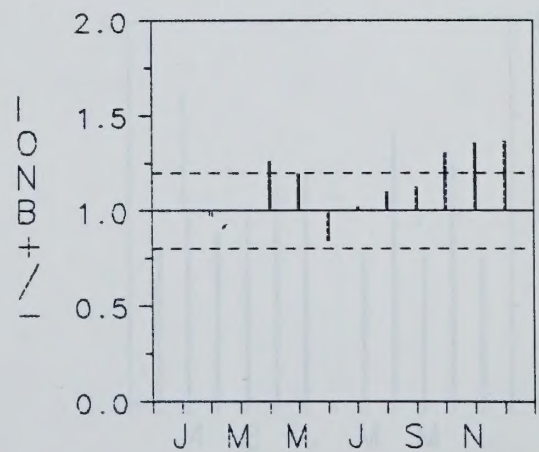
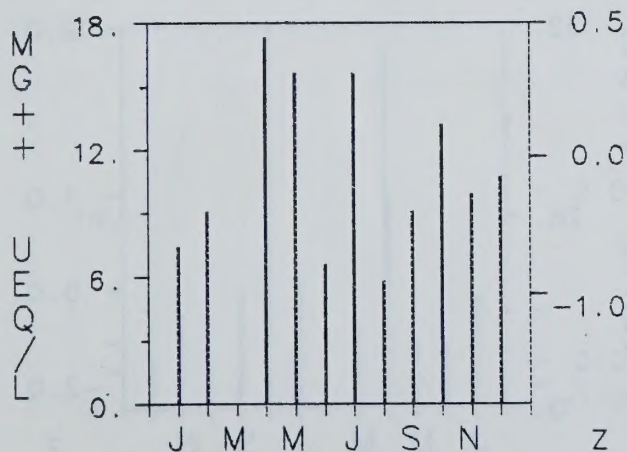
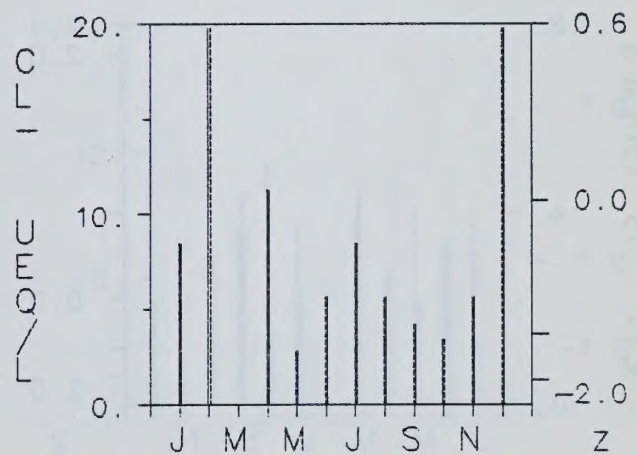
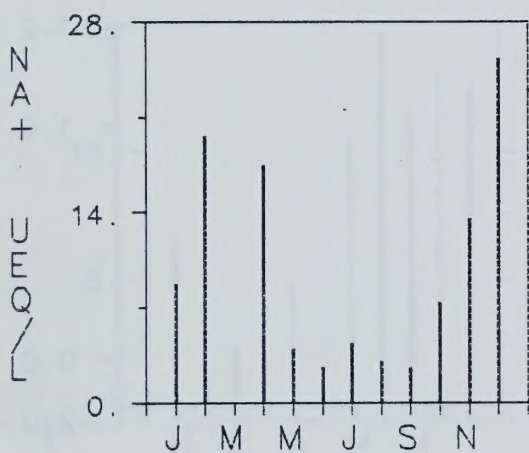
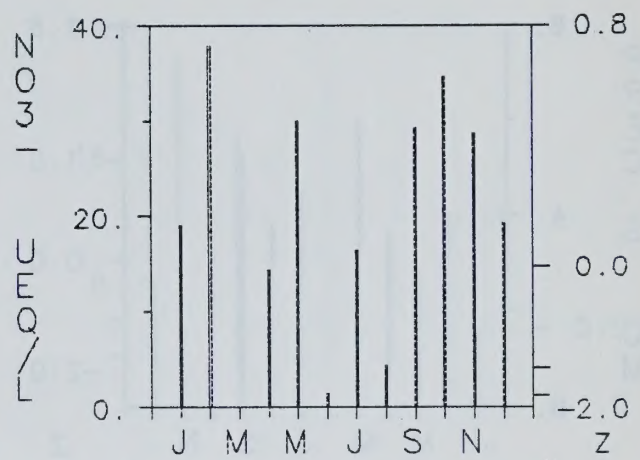
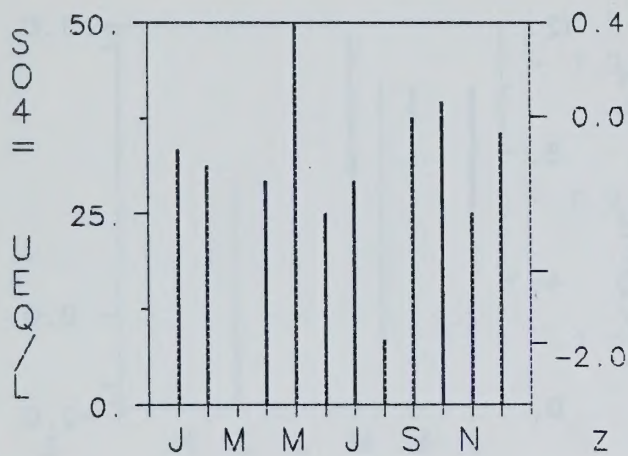
## FORT ST JOHN

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## FORT ST JOHN

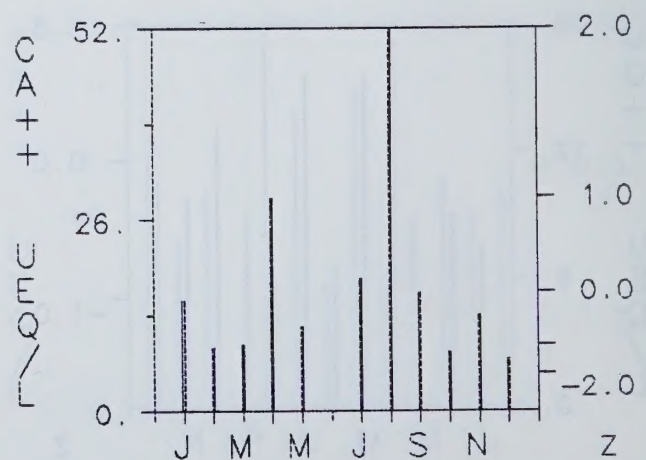
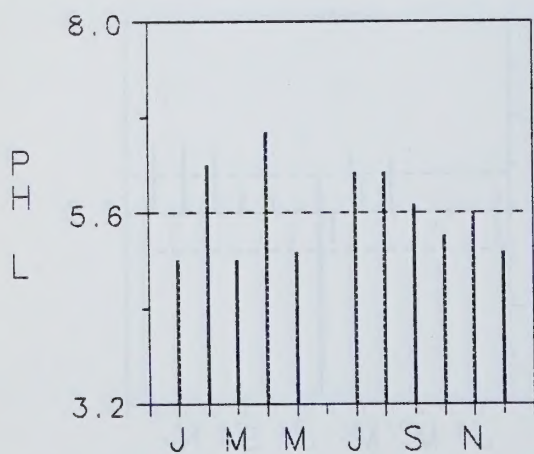
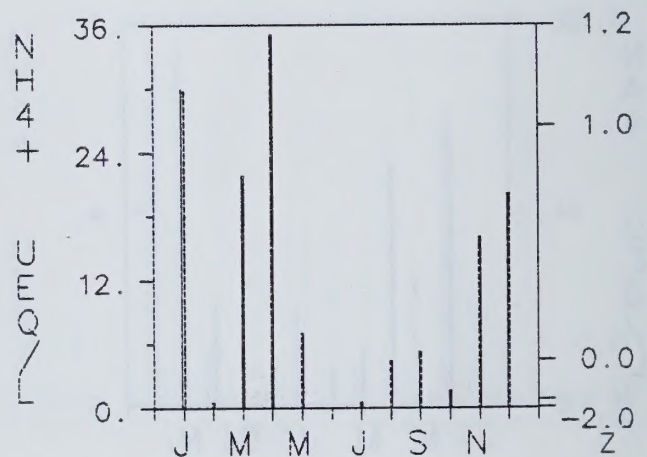
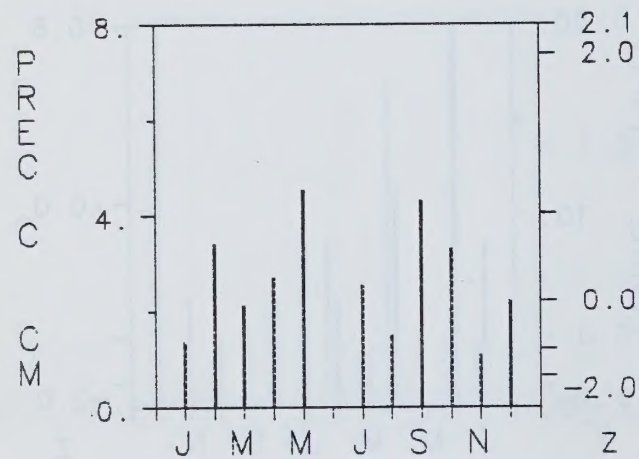
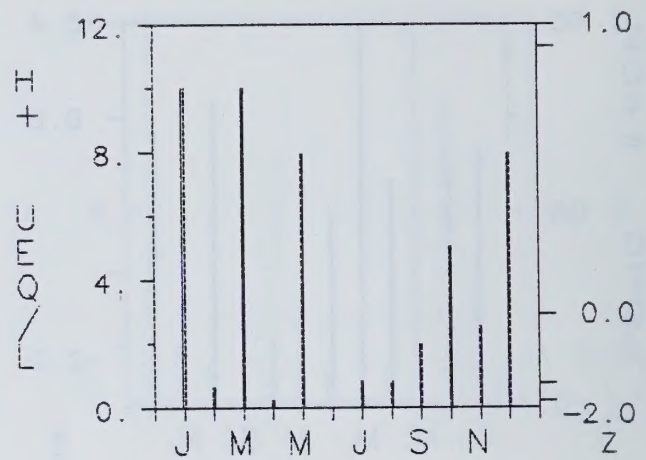
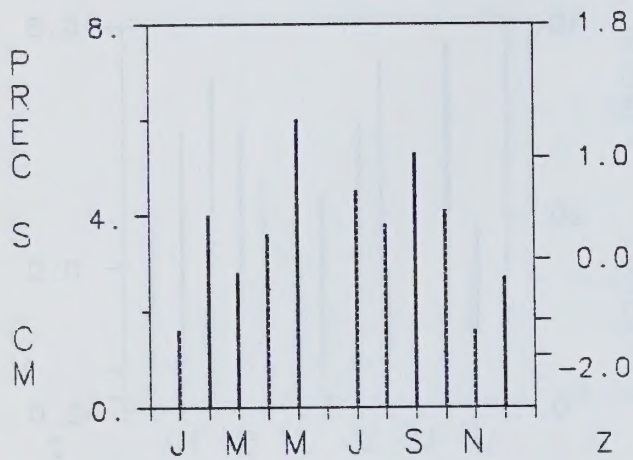
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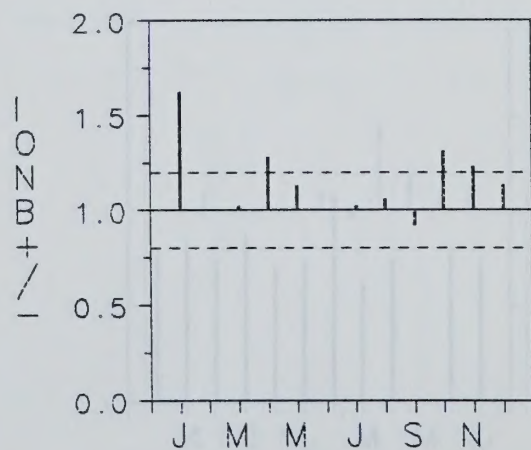
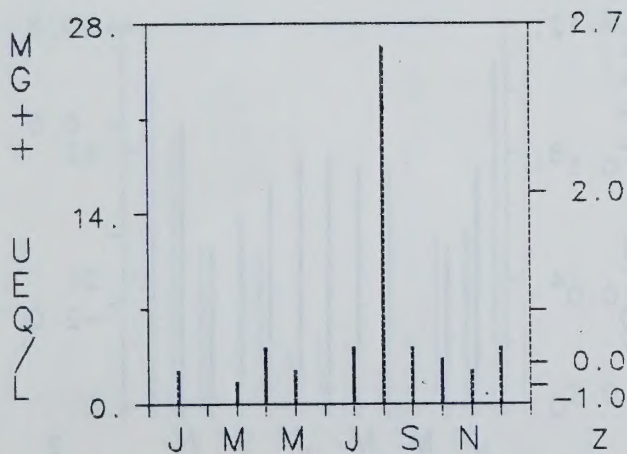
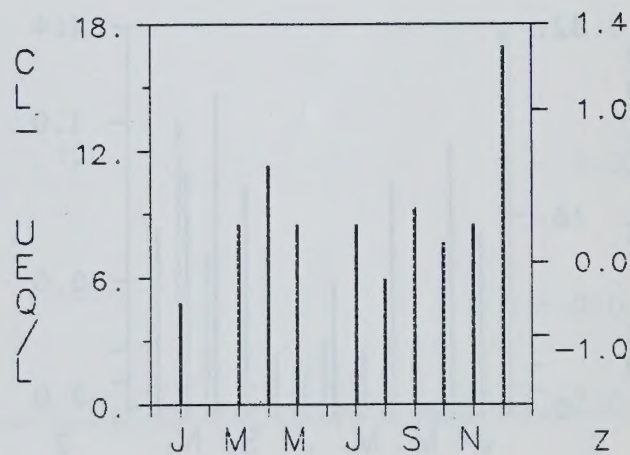
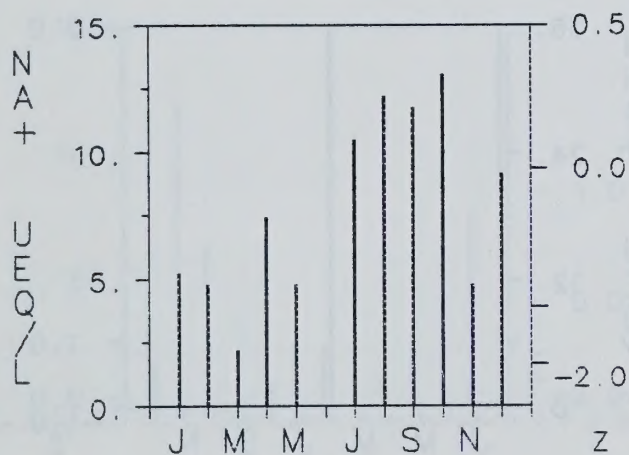
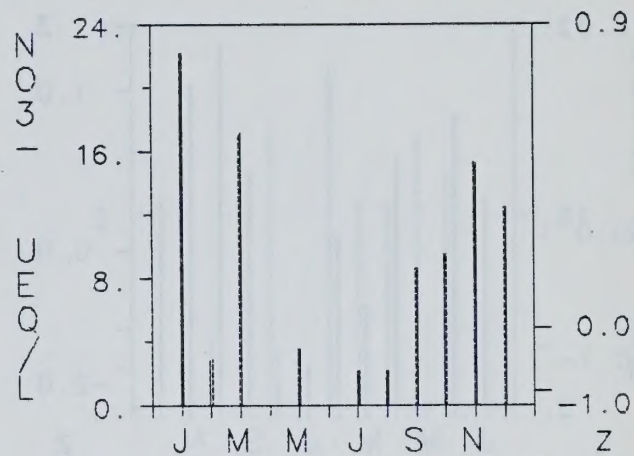
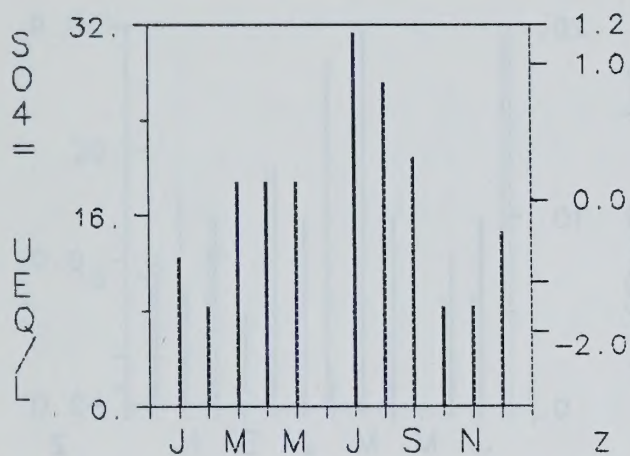
## KELOWNA

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## KELOWNA

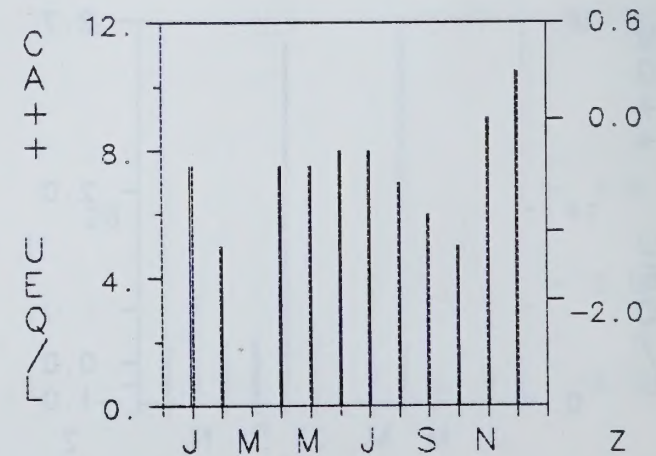
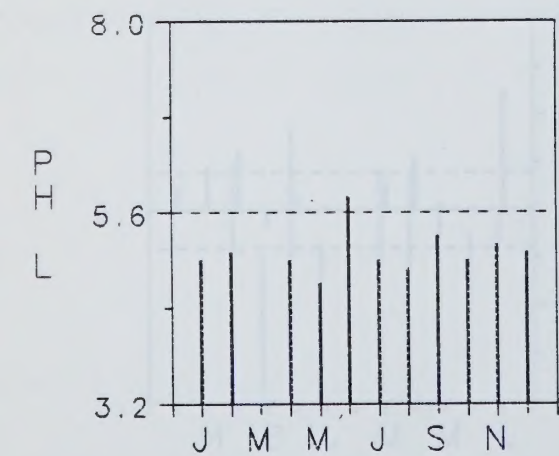
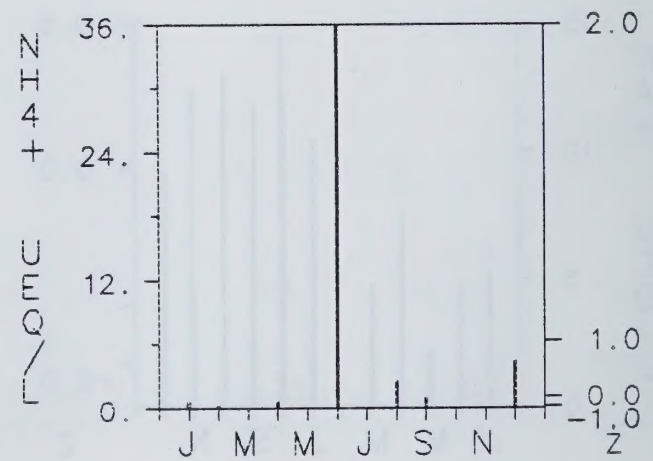
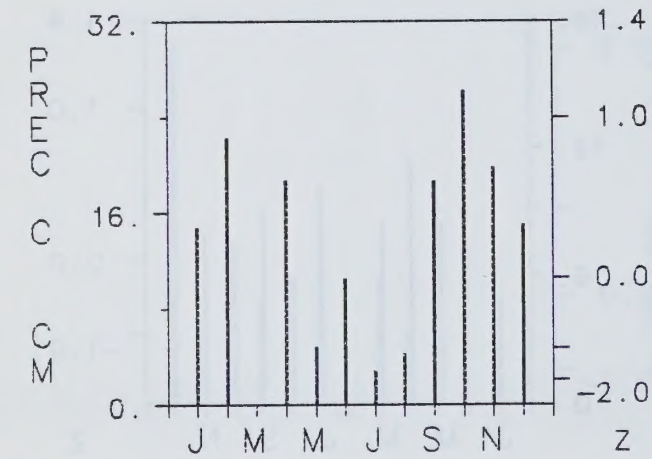
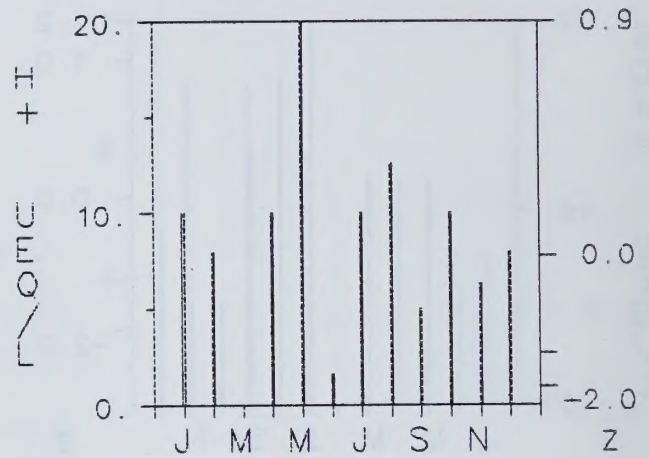
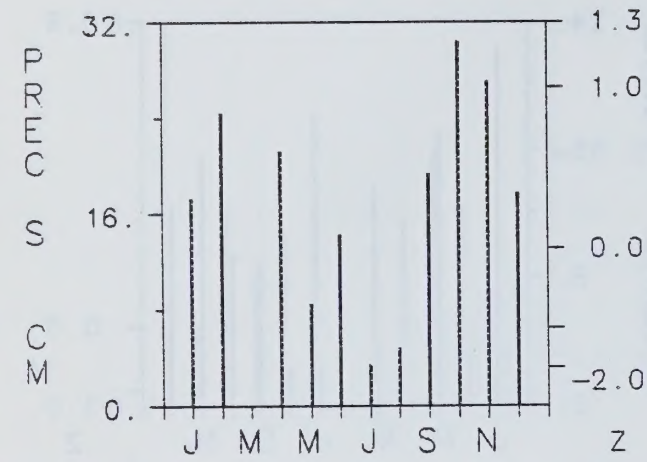
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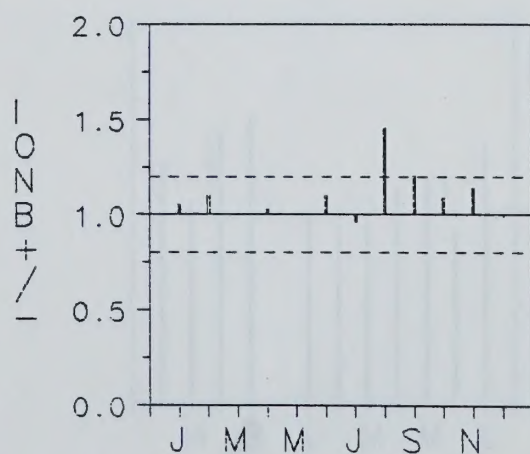
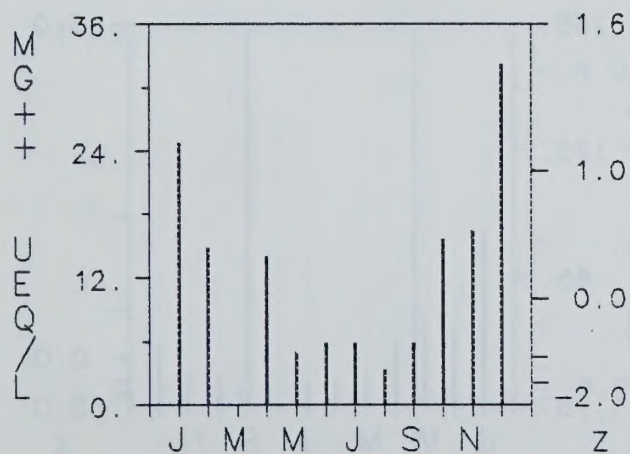
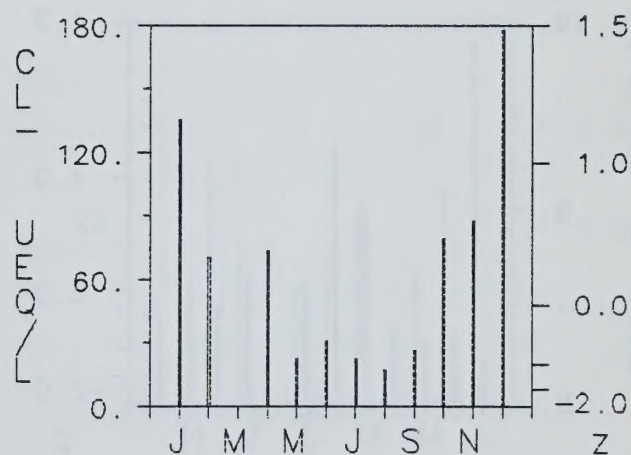
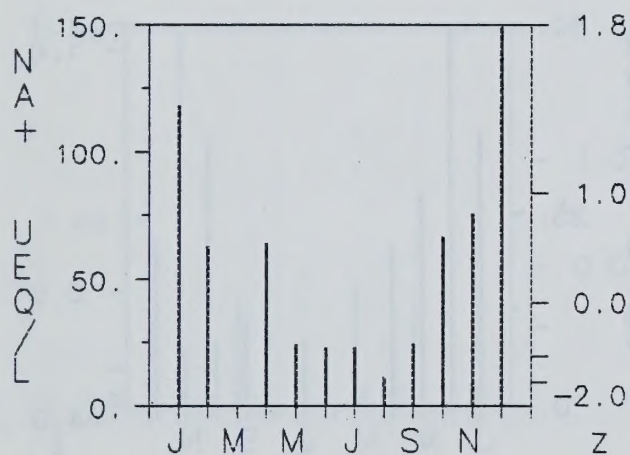
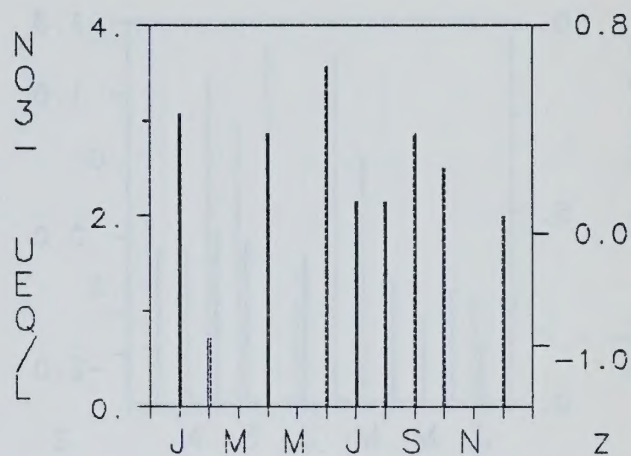
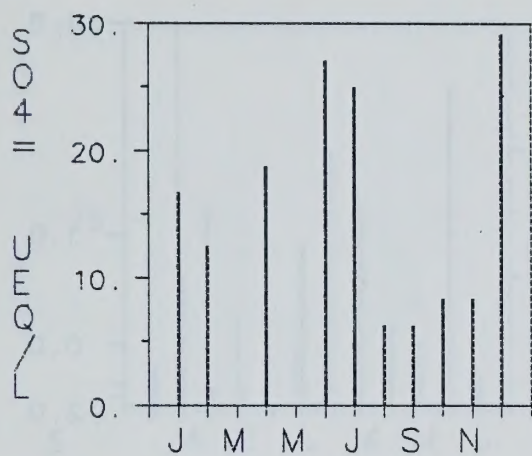
## PORT HARDY

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## PORT HARDY

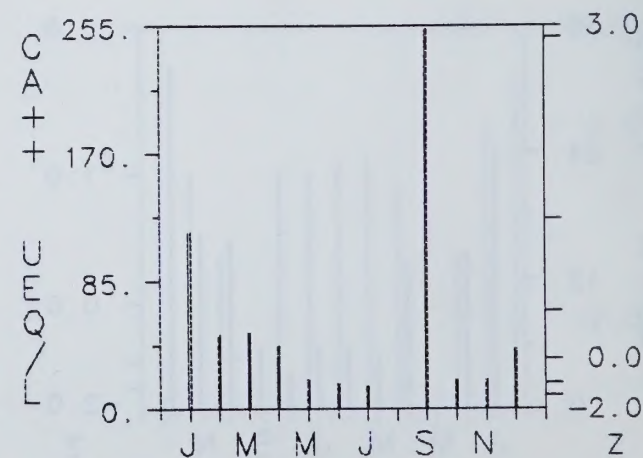
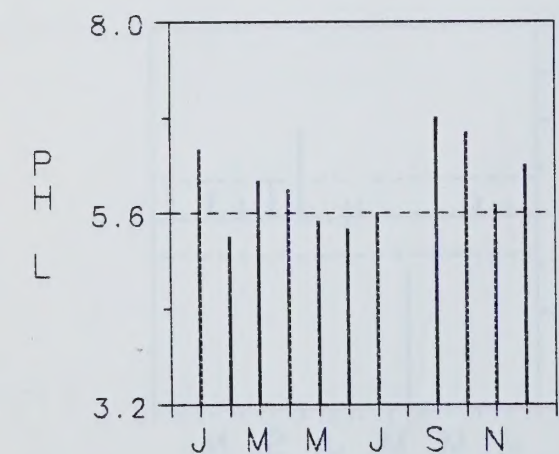
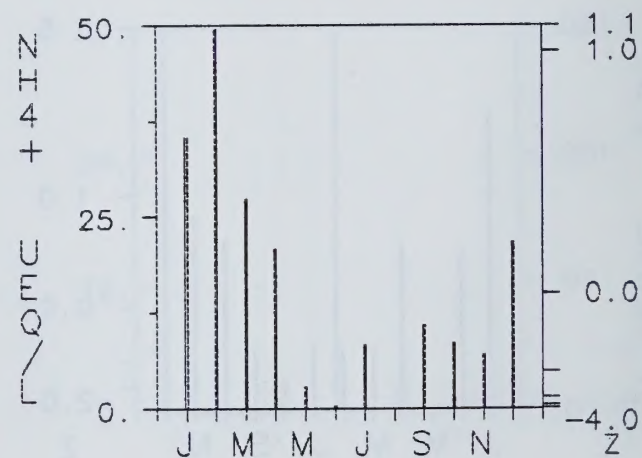
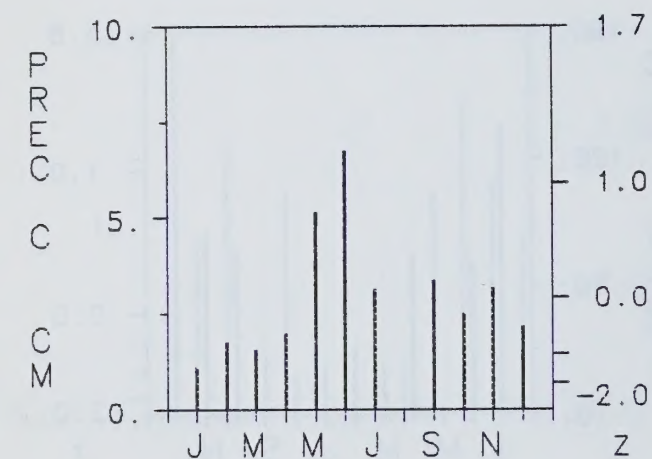
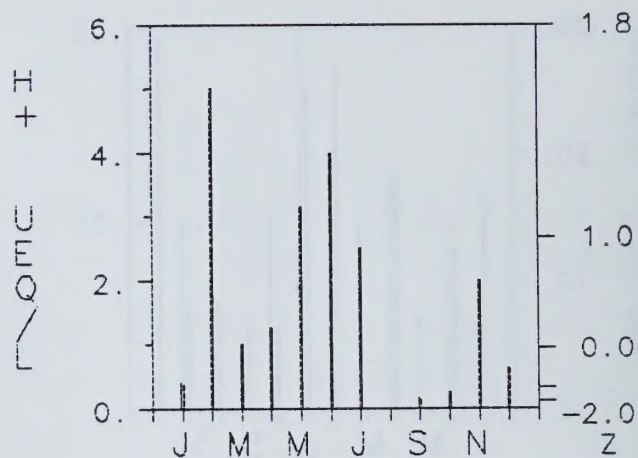
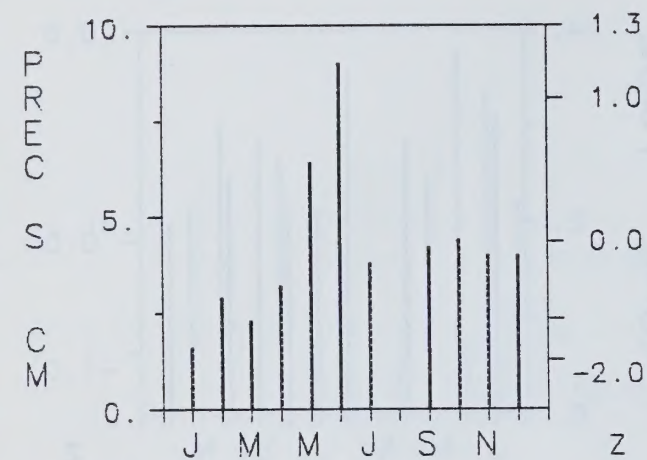
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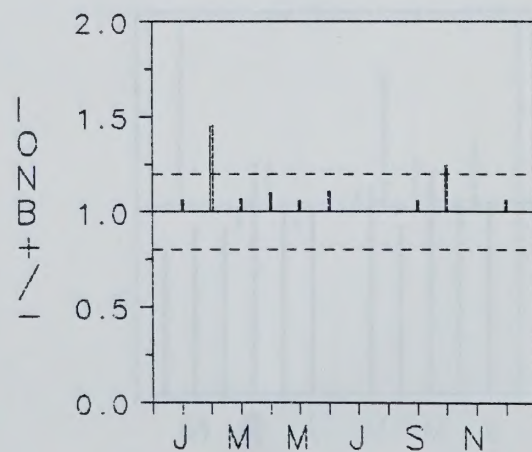
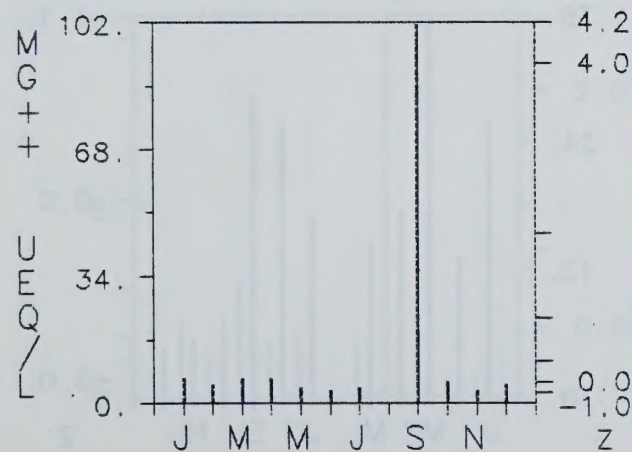
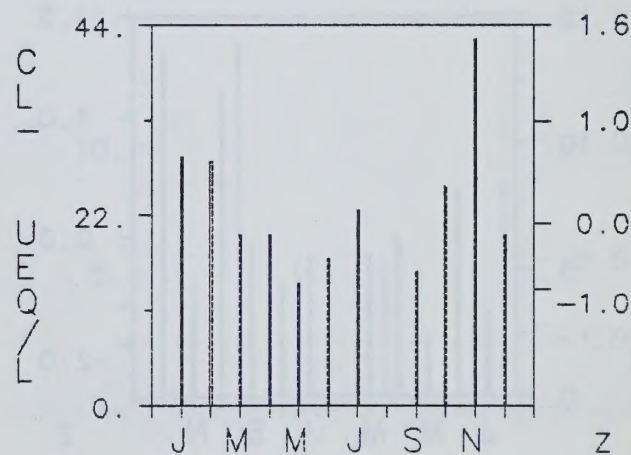
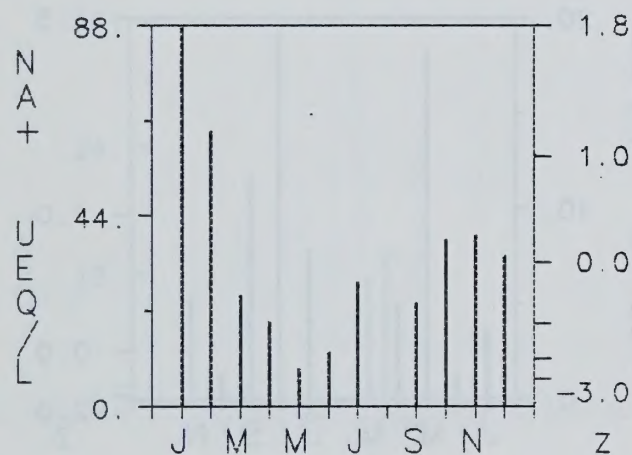
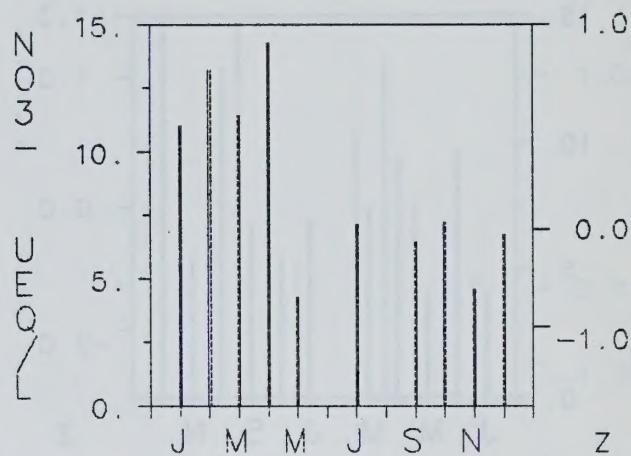
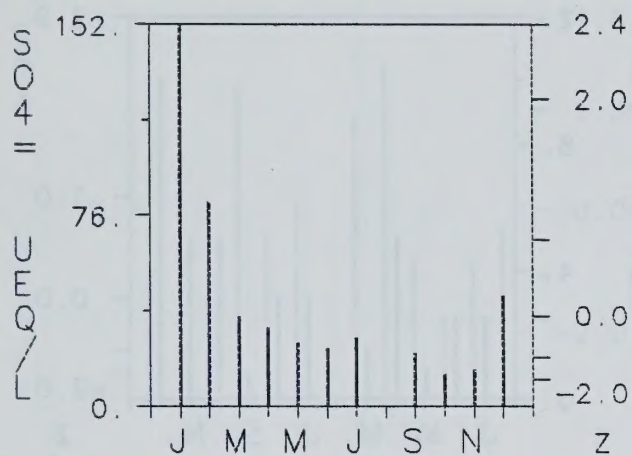
## PRINCE GEORGE

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## PRINCE GEORGE

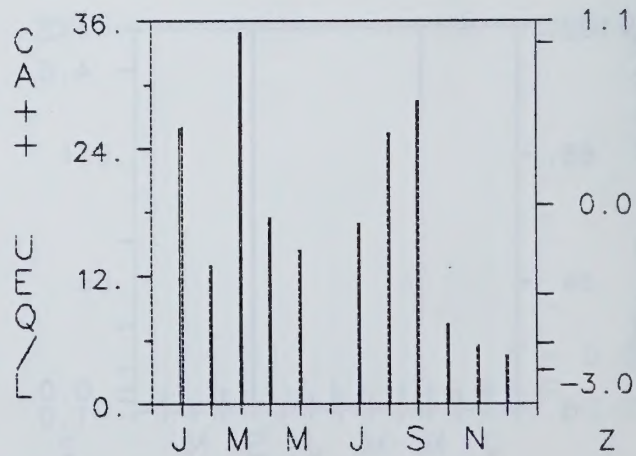
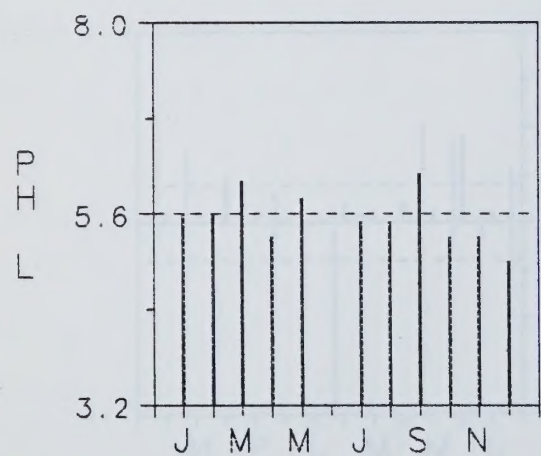
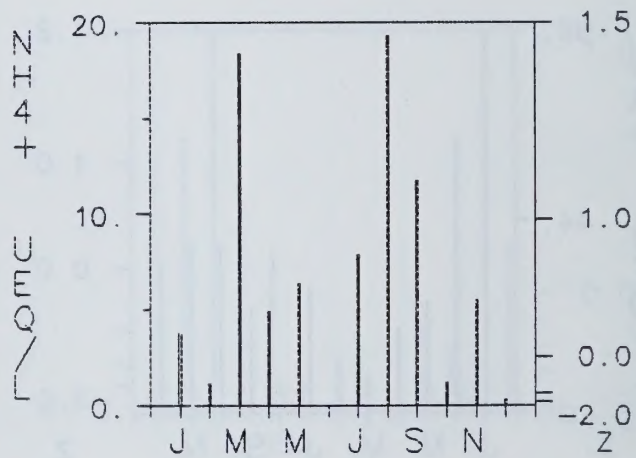
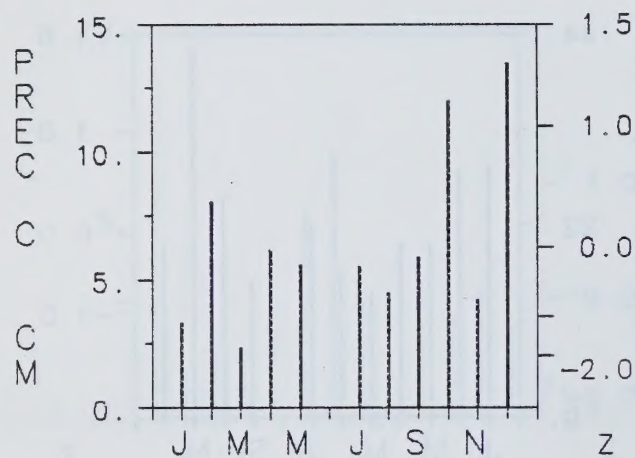
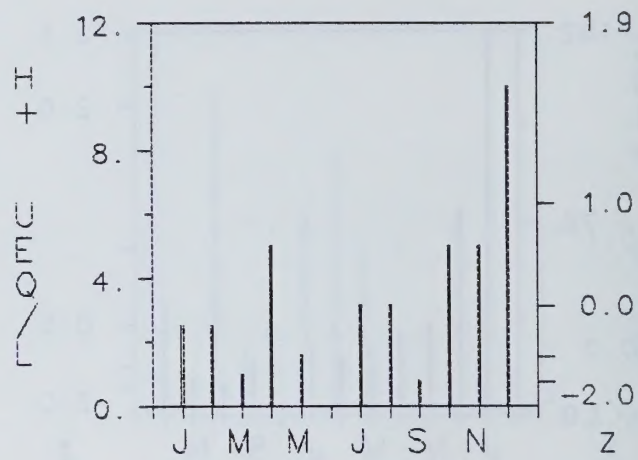
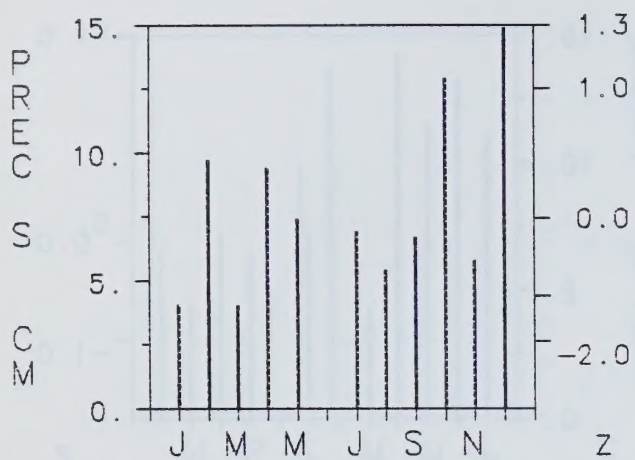
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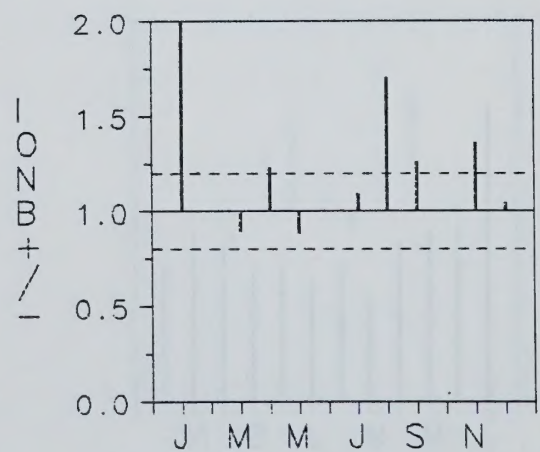
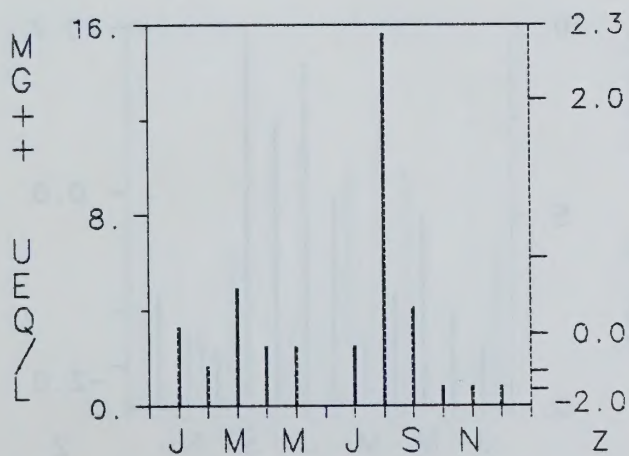
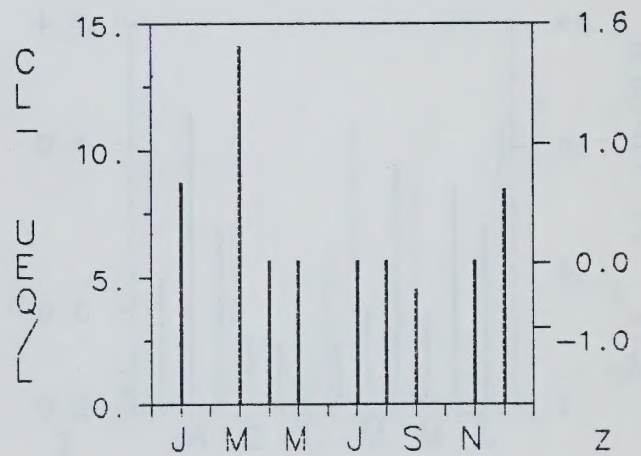
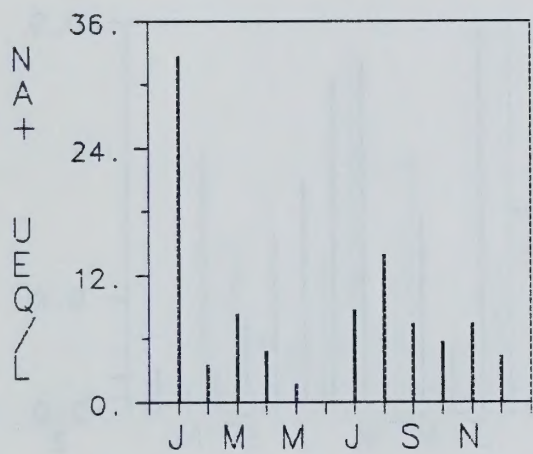
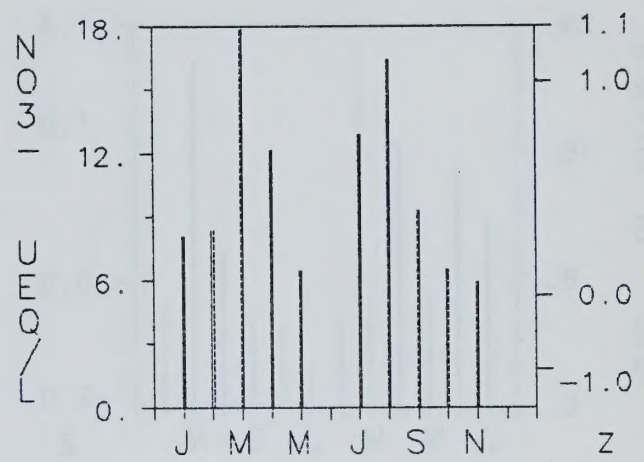
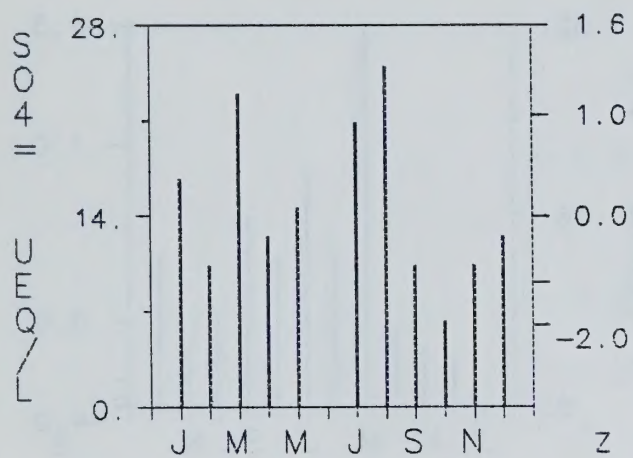
## REVELSTOKE

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## REVELSTOKE

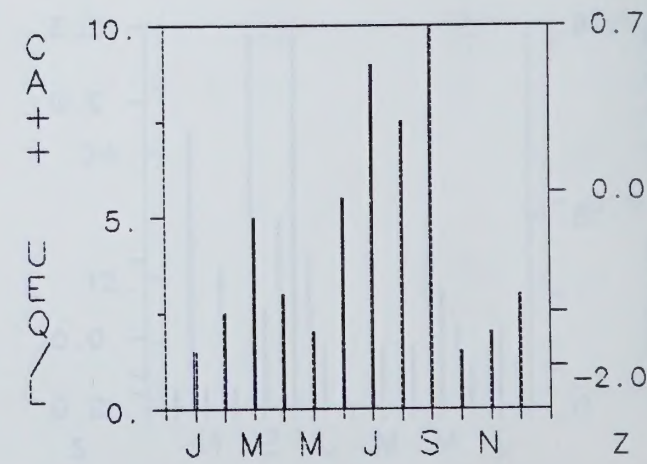
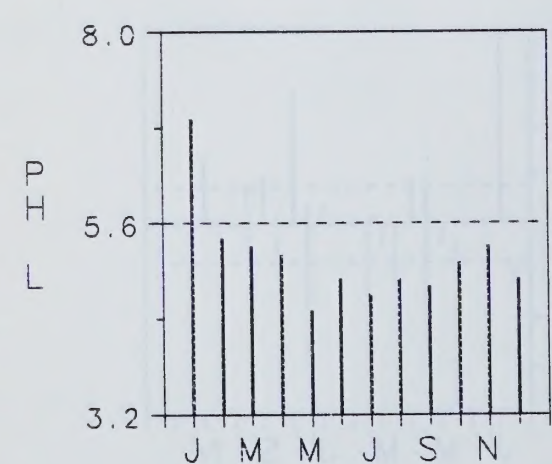
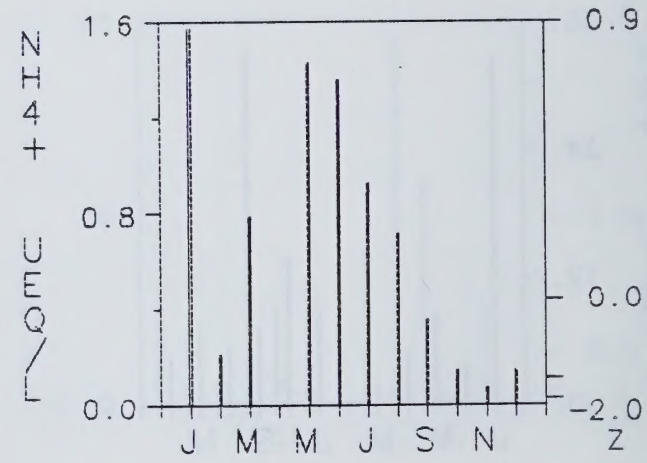
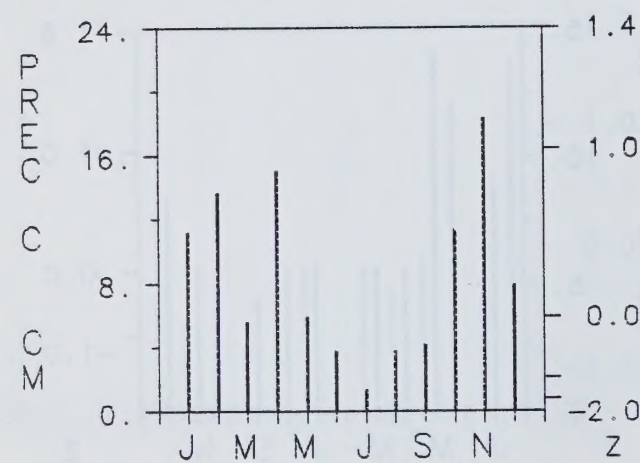
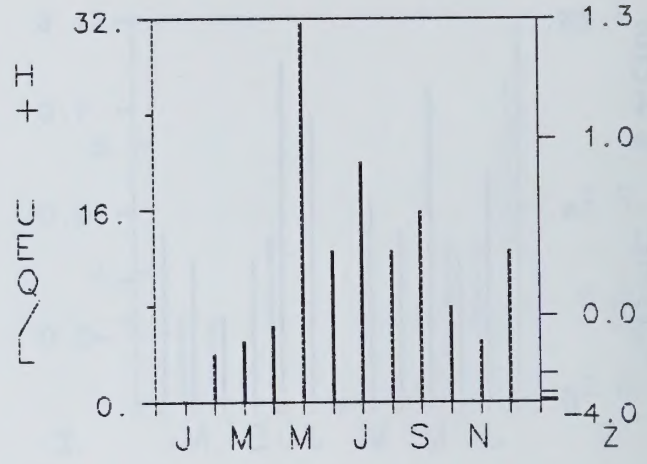
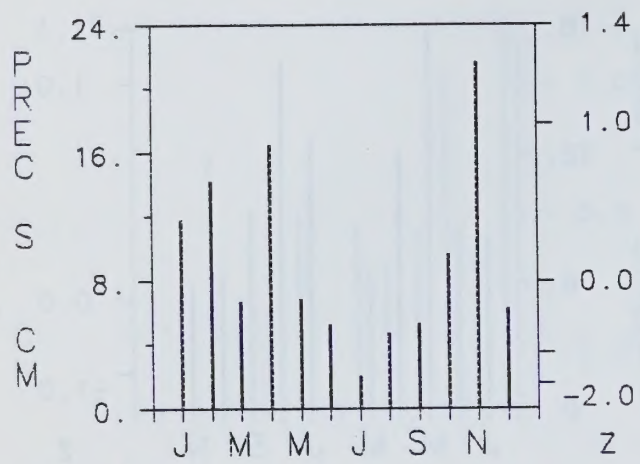
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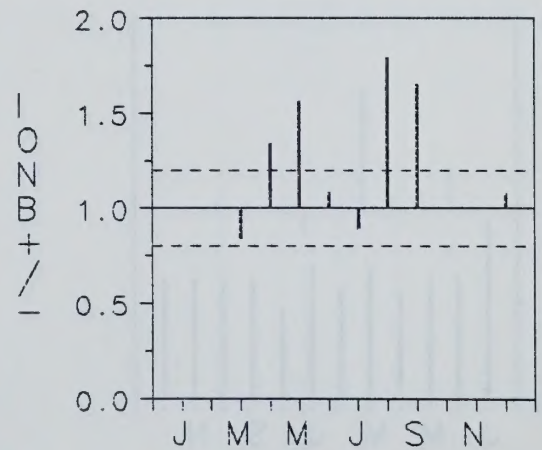
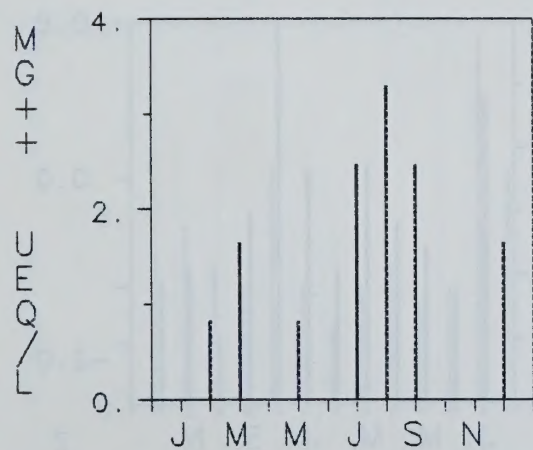
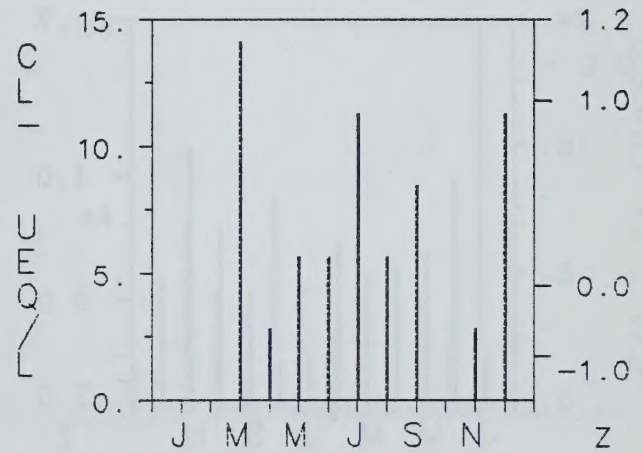
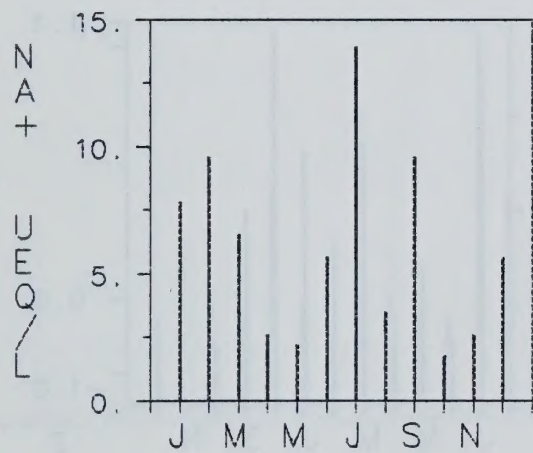
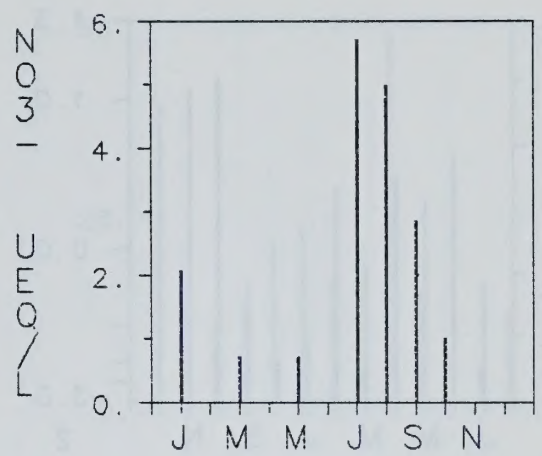
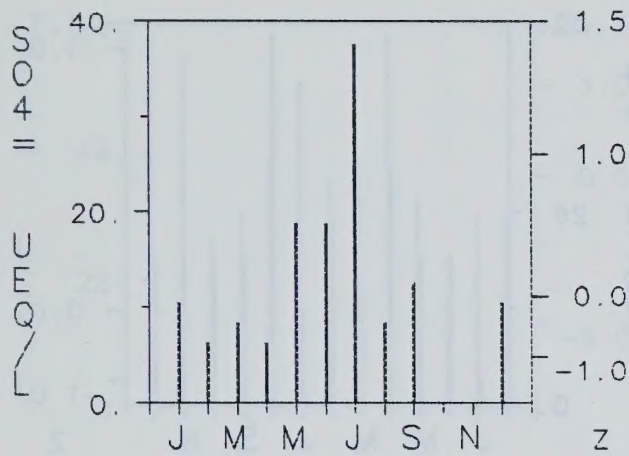
# TERRACE

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## TERRACE

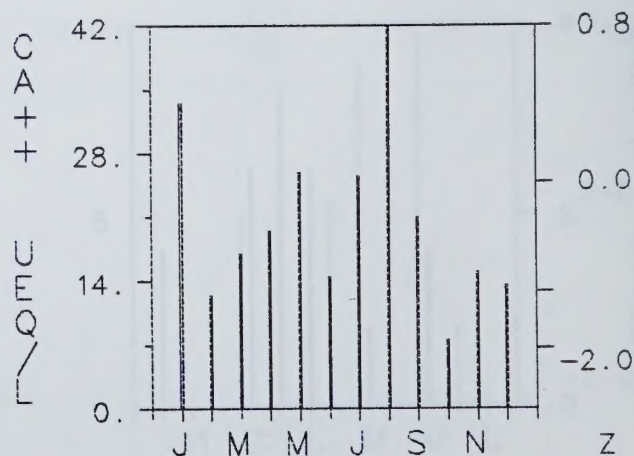
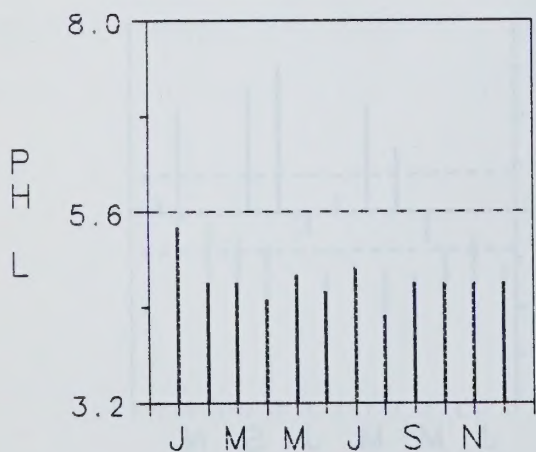
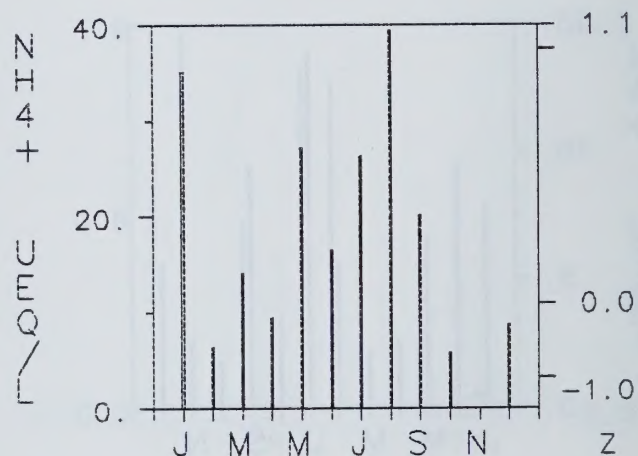
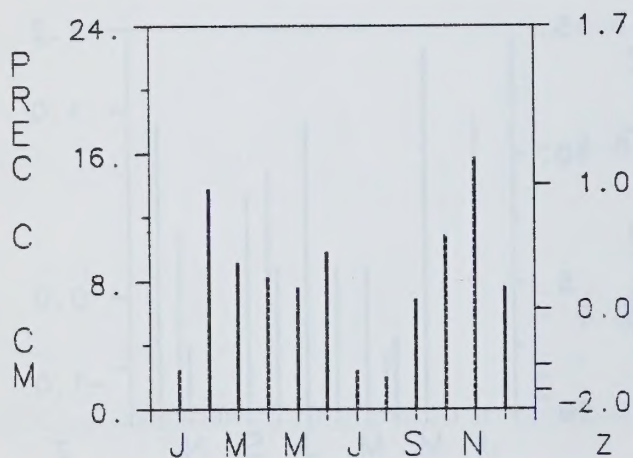
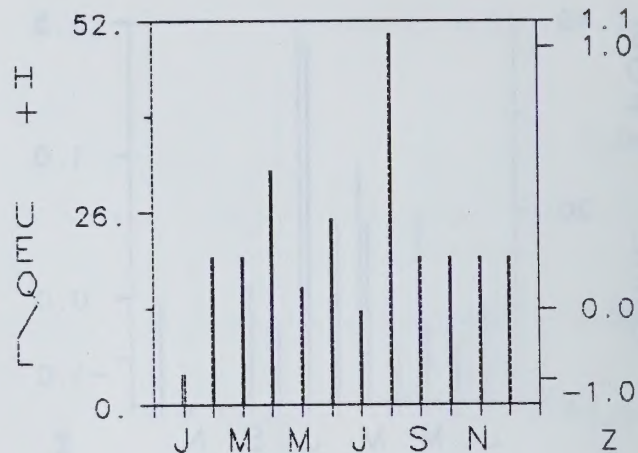
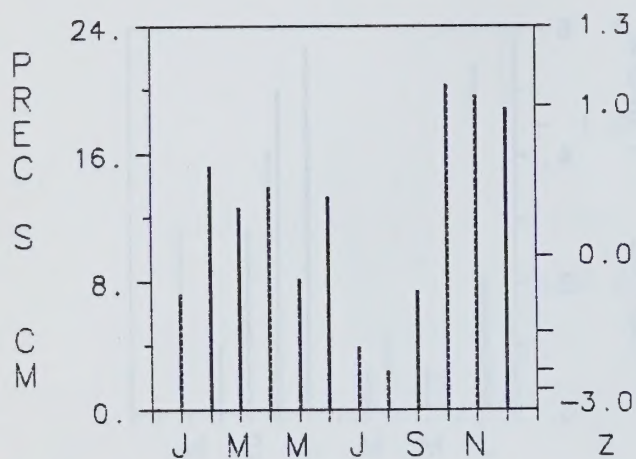
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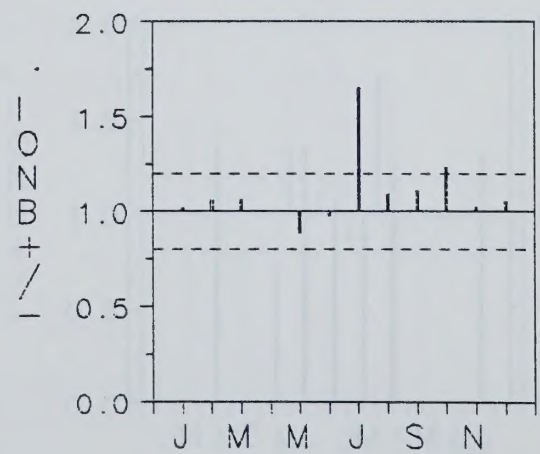
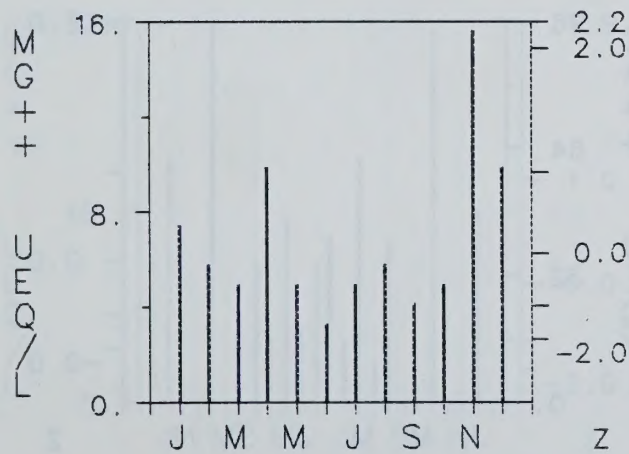
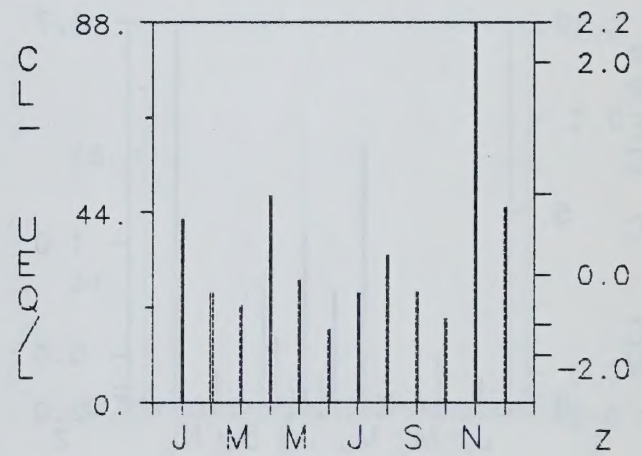
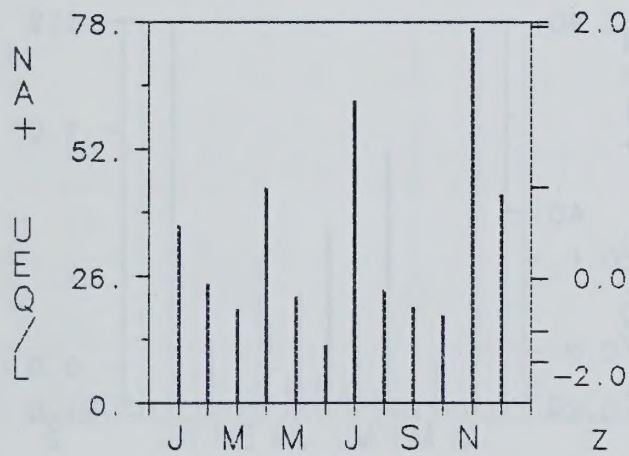
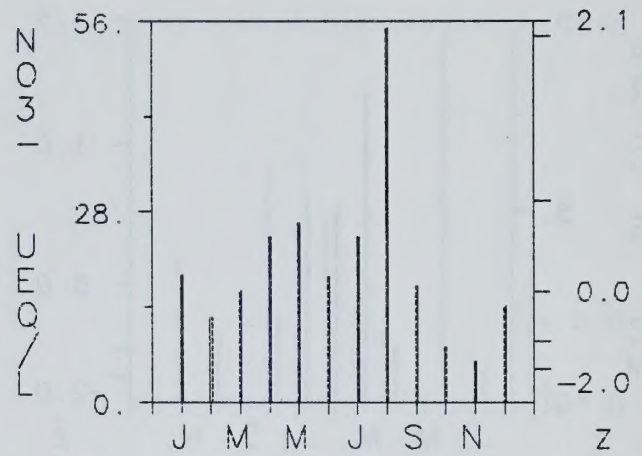
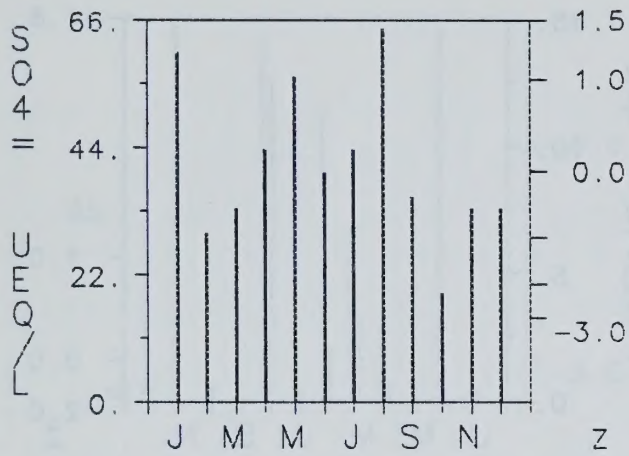
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VANCOUVER

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## VANCOUVER

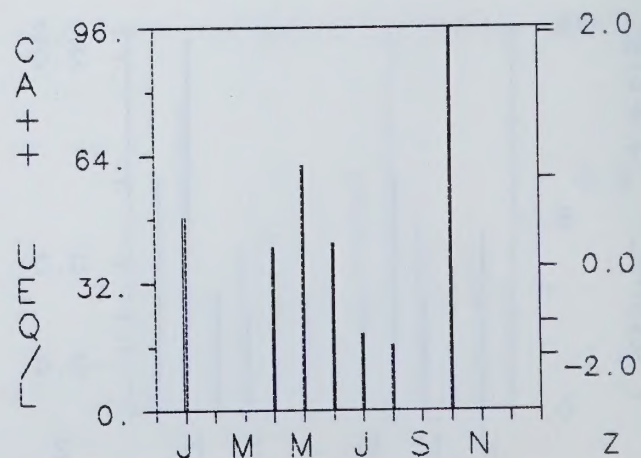
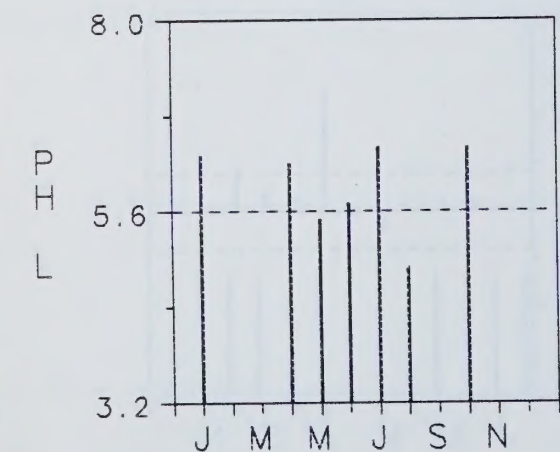
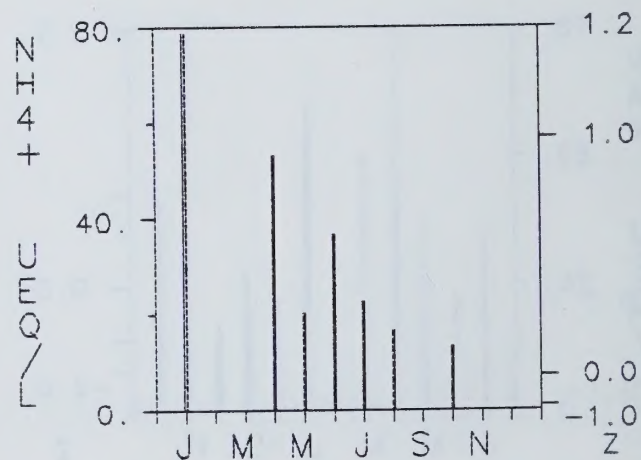
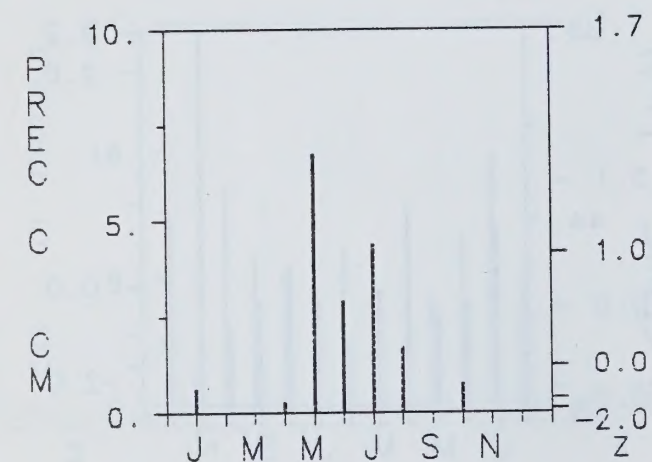
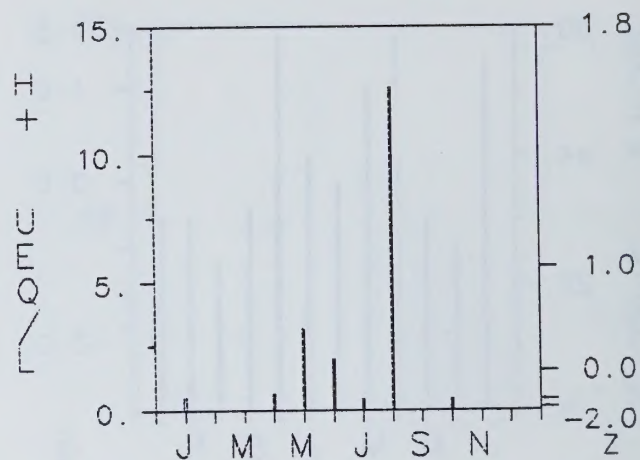
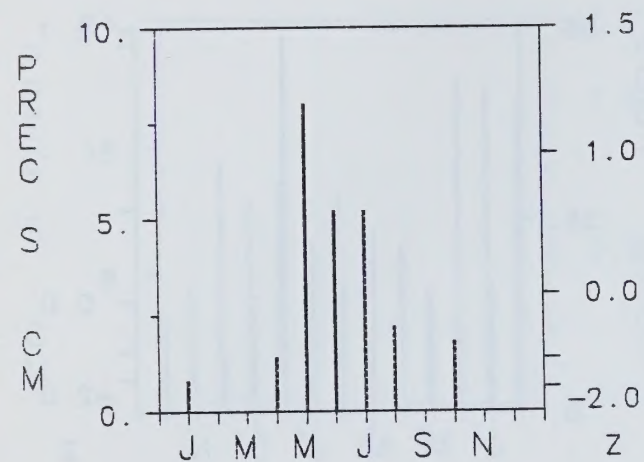
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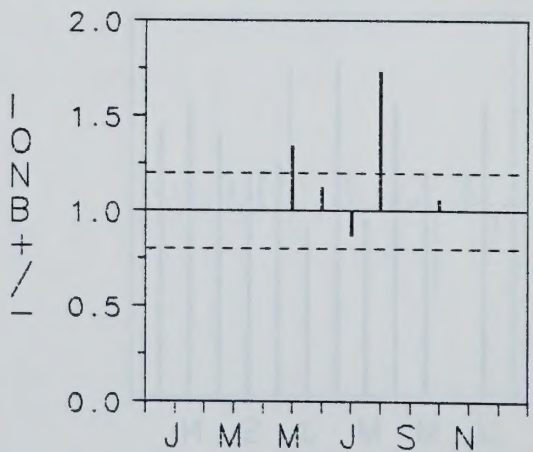
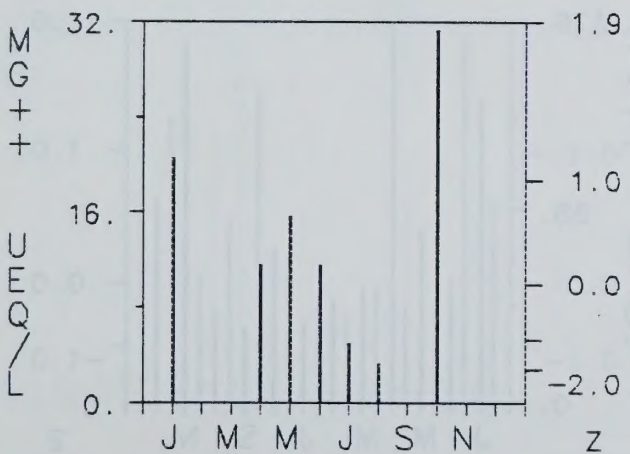
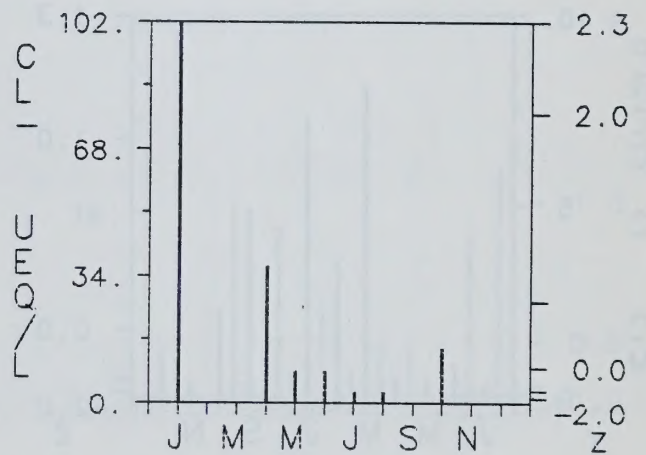
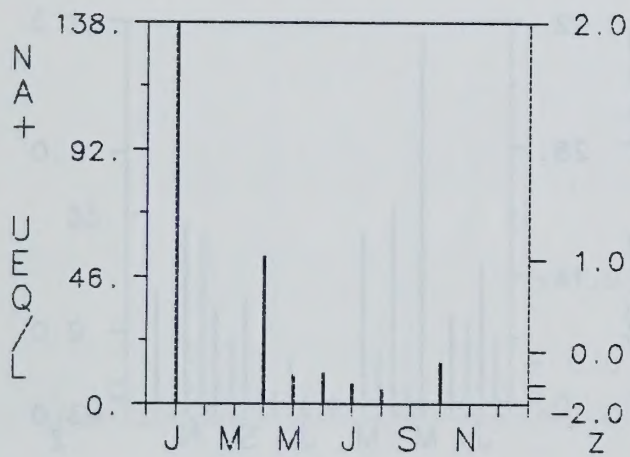
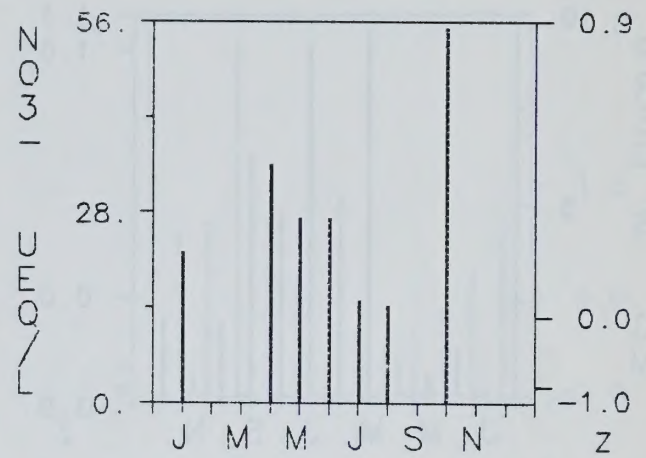
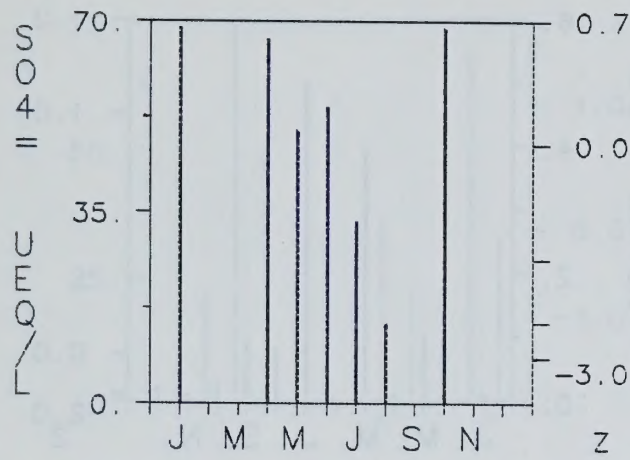
## CORONATION

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## CORONATION

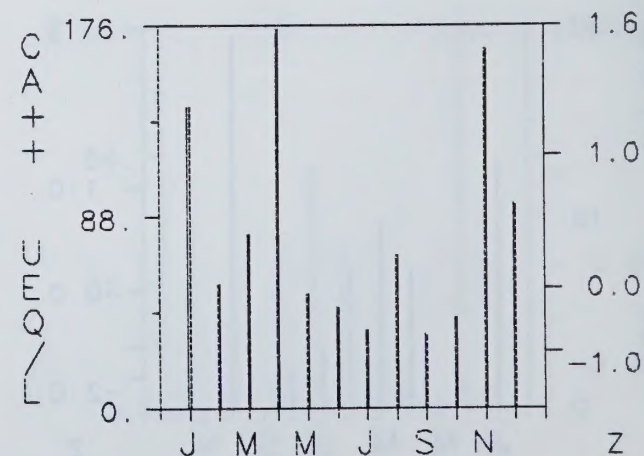
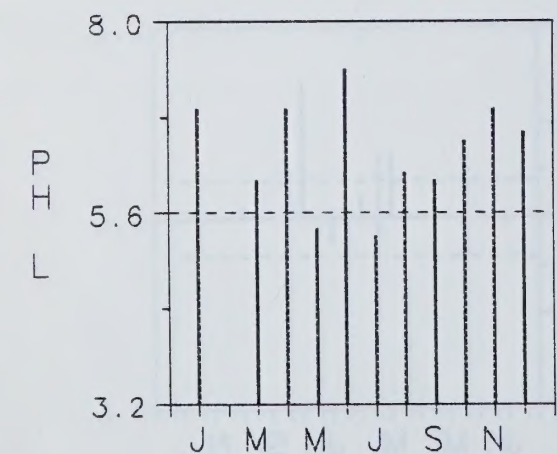
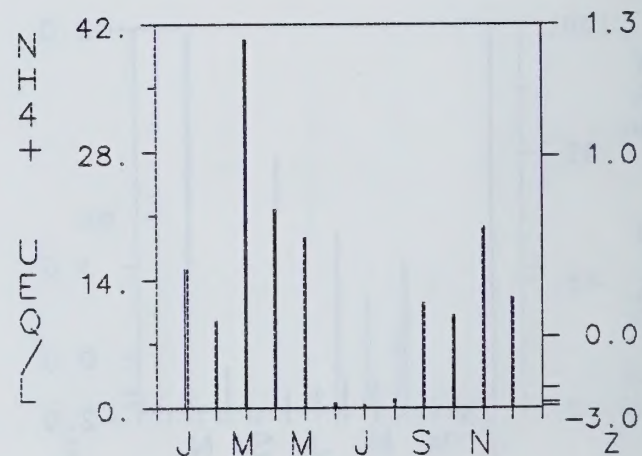
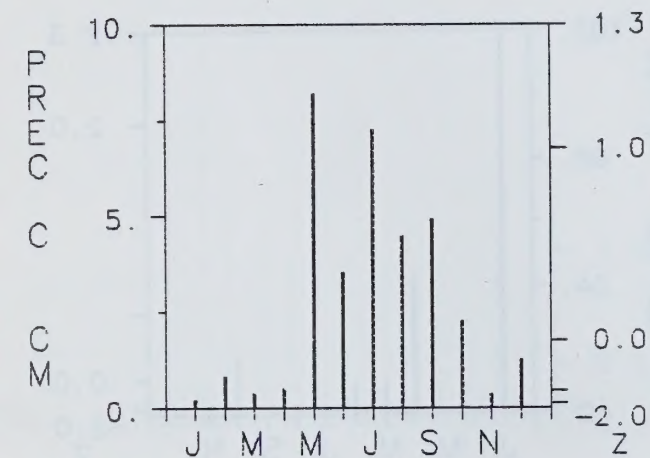
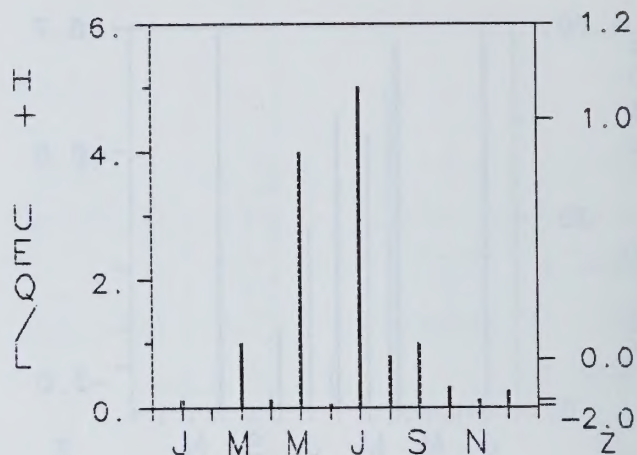
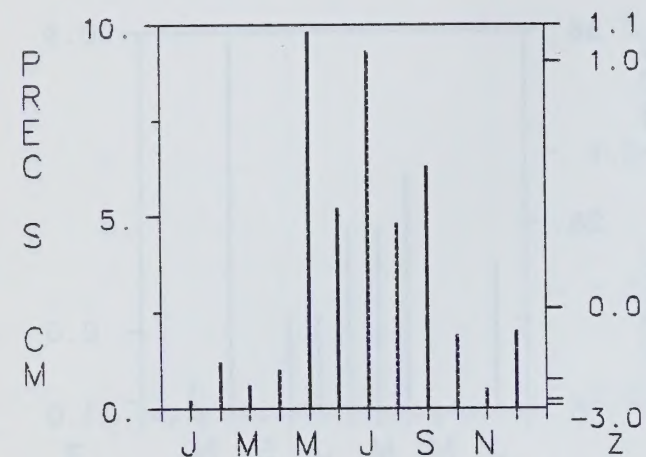
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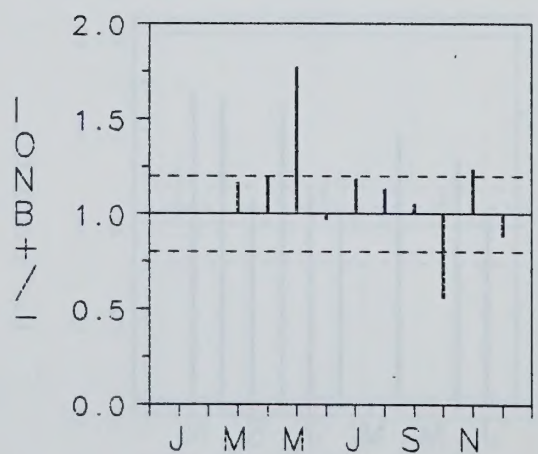
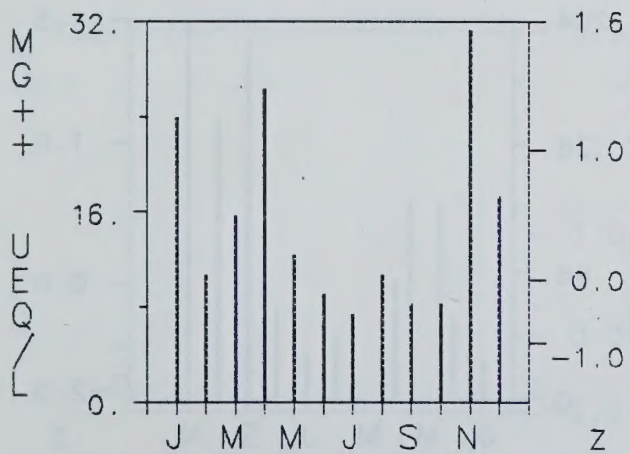
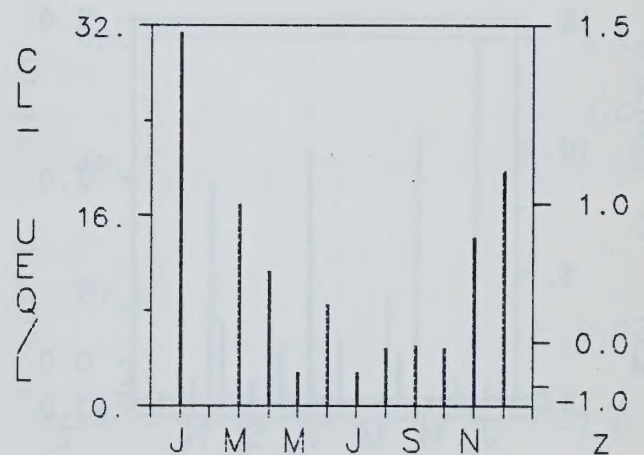
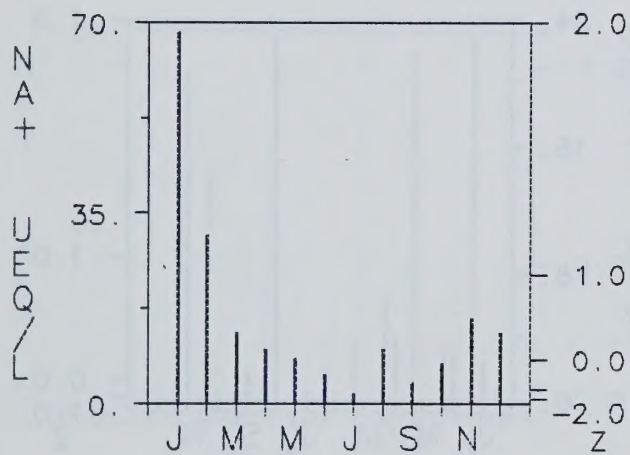
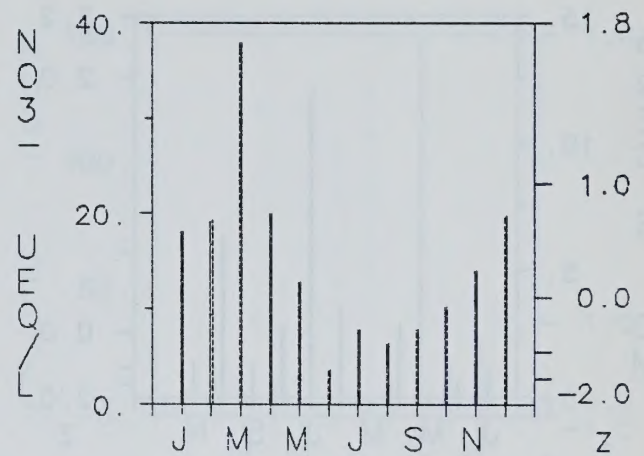
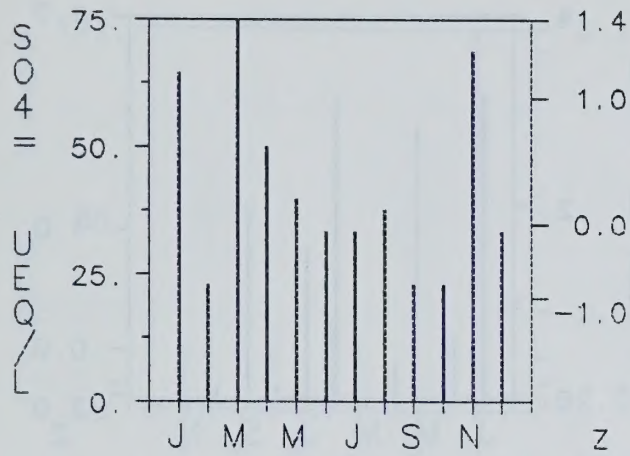
EDSON

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EDSON

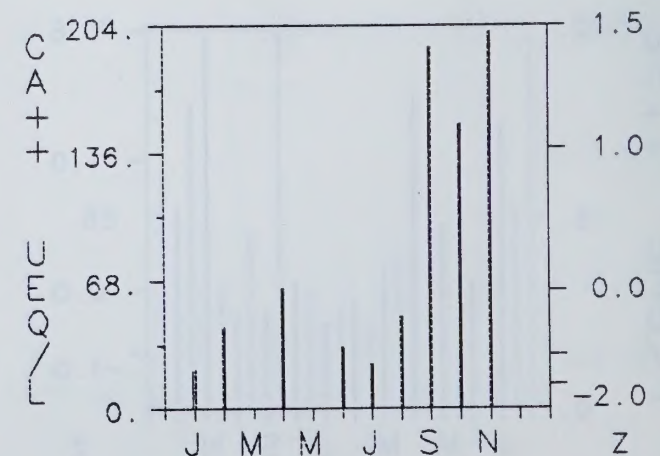
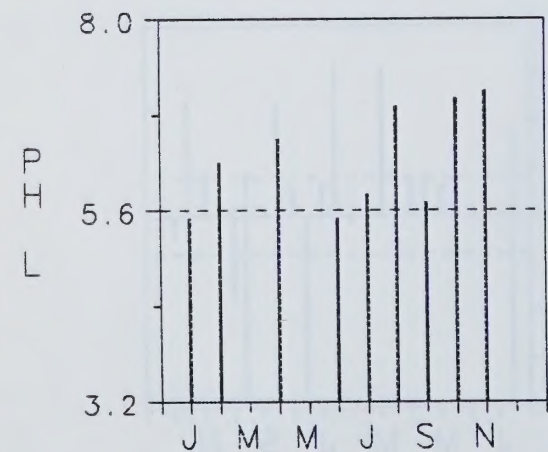
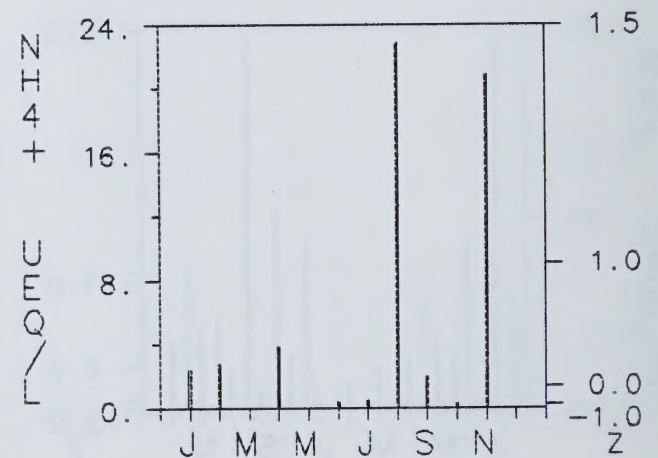
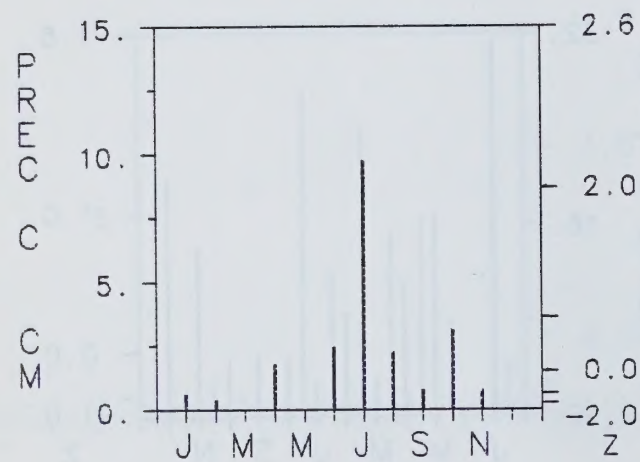
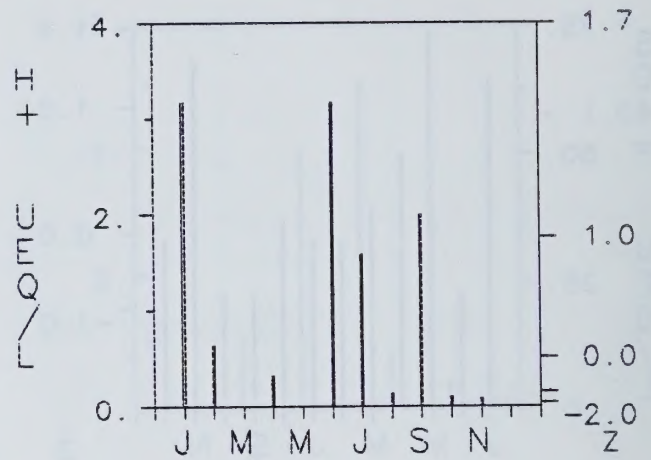
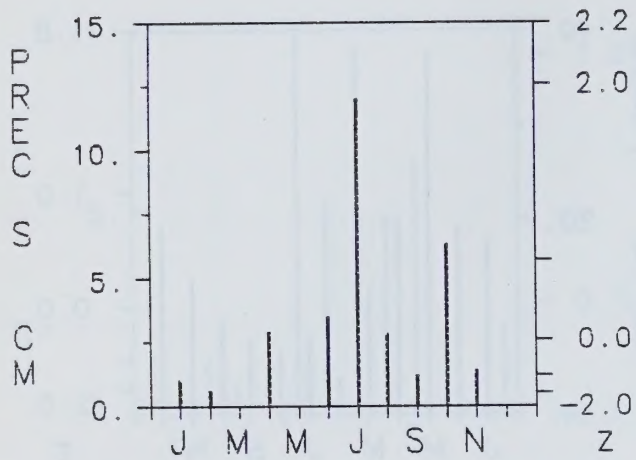
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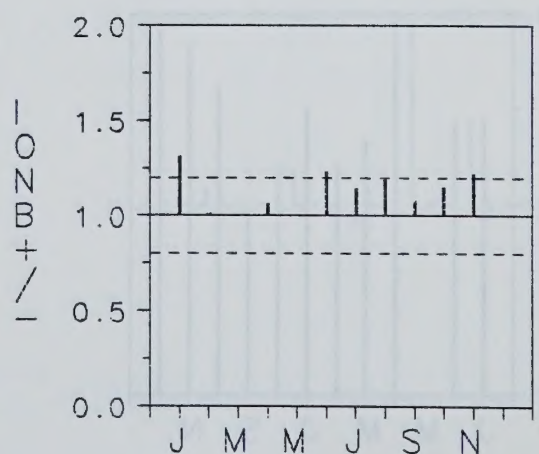
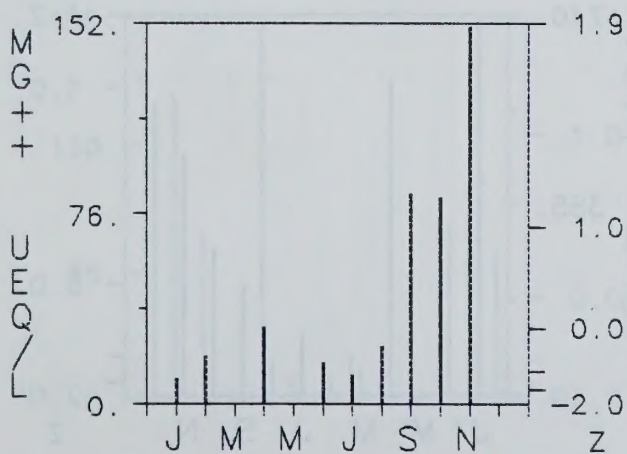
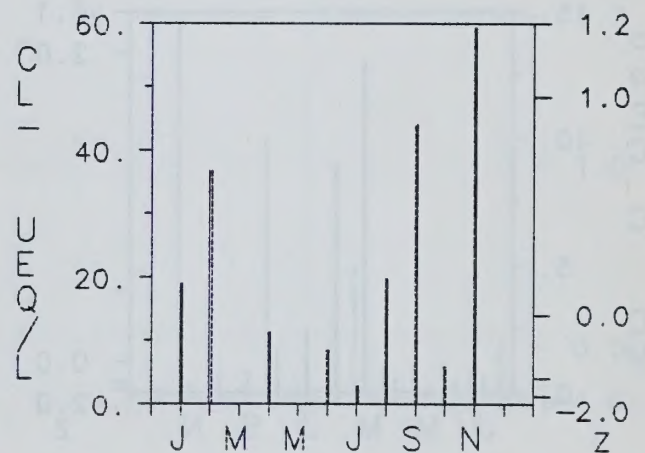
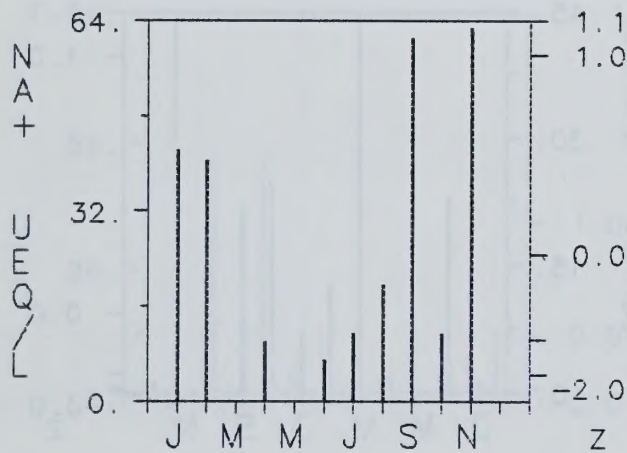
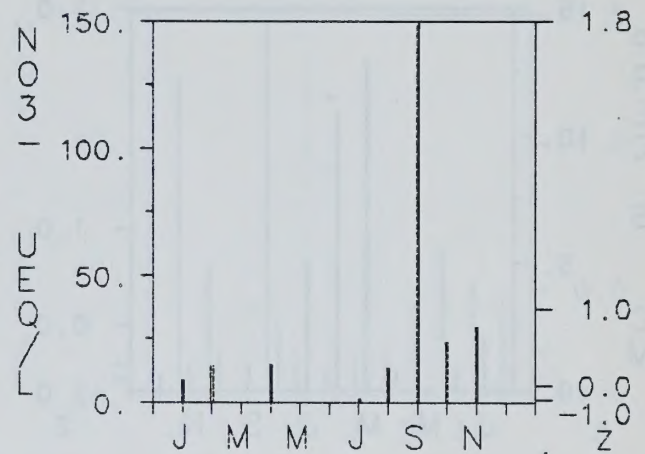
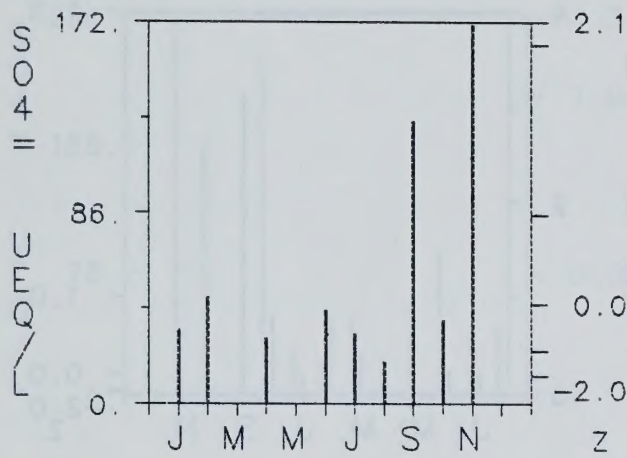
## FORT MCMURRAY

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## FORT MCMURRAY

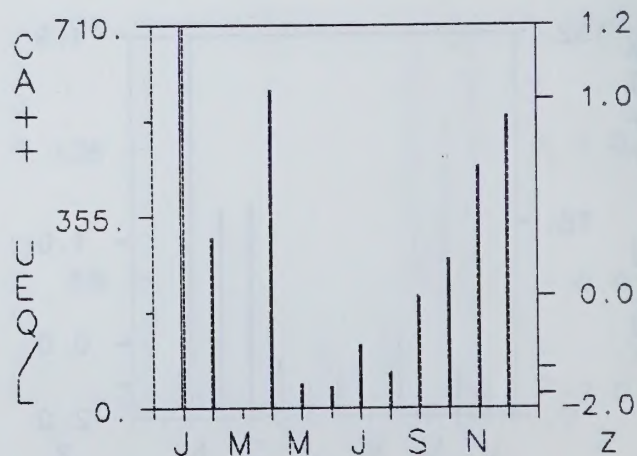
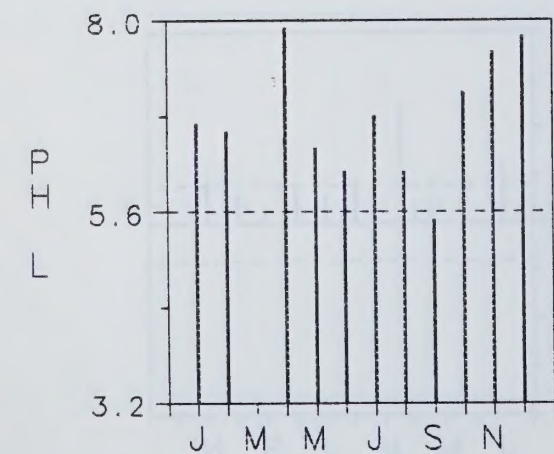
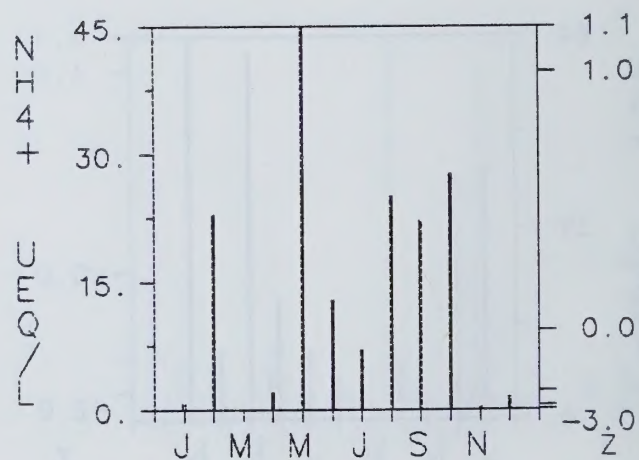
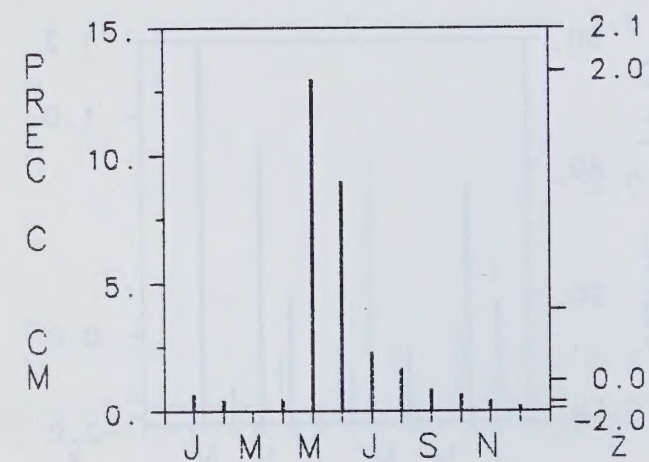
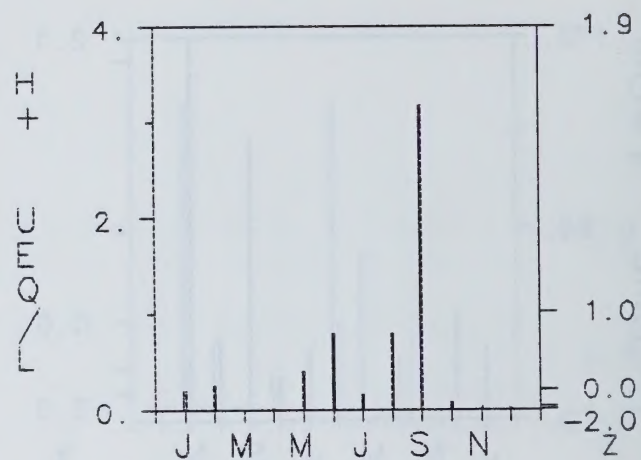
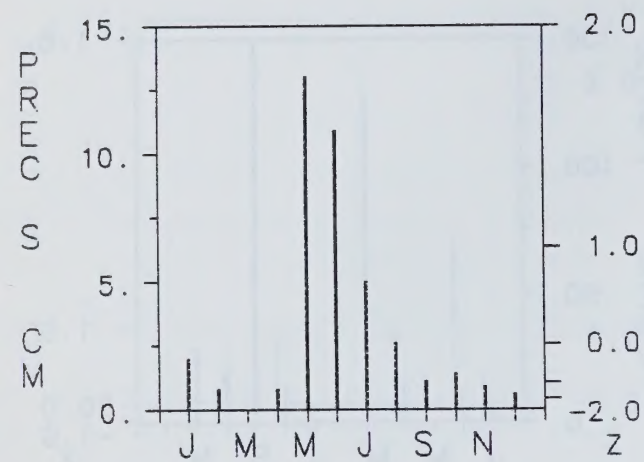
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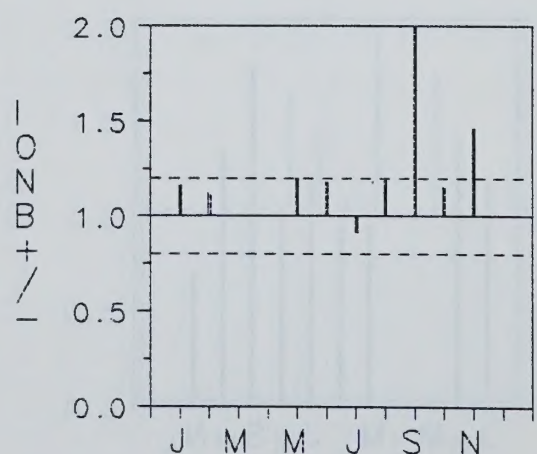
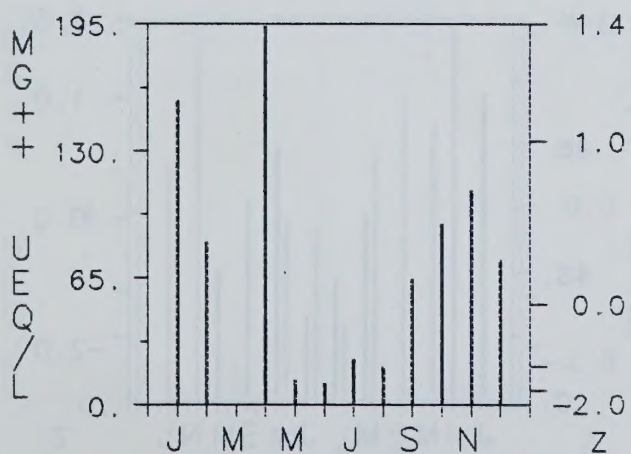
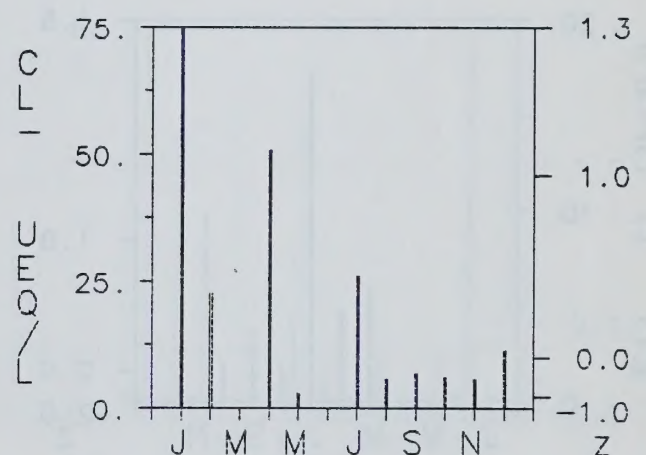
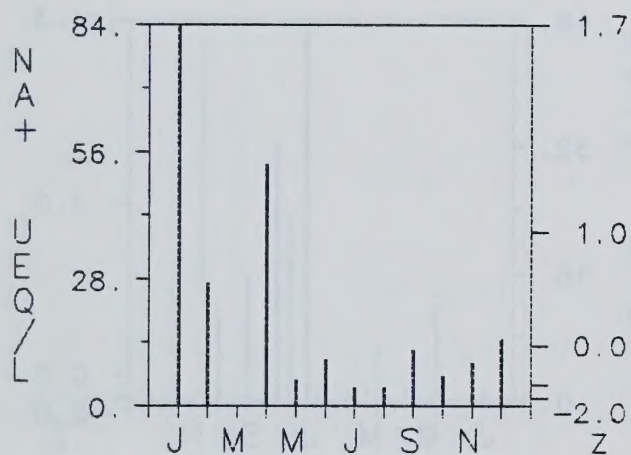
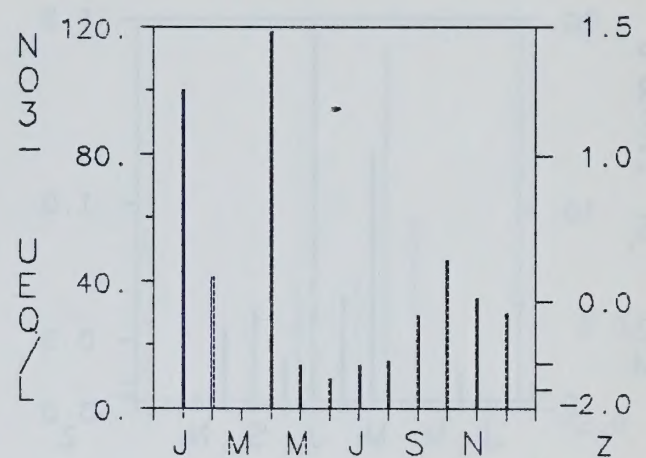
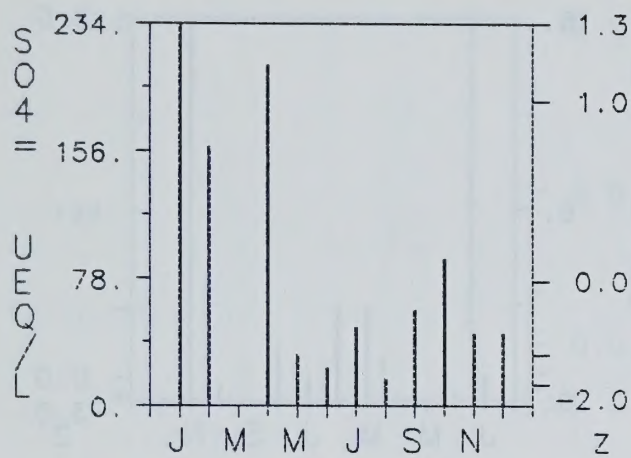
## LETHBRIDGE

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## LETHBRIDGE

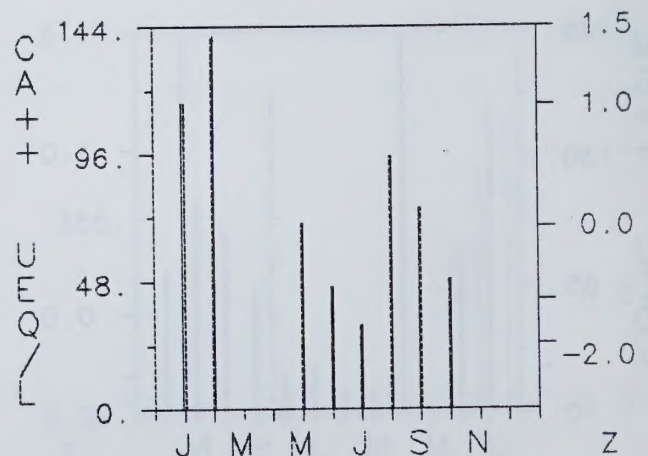
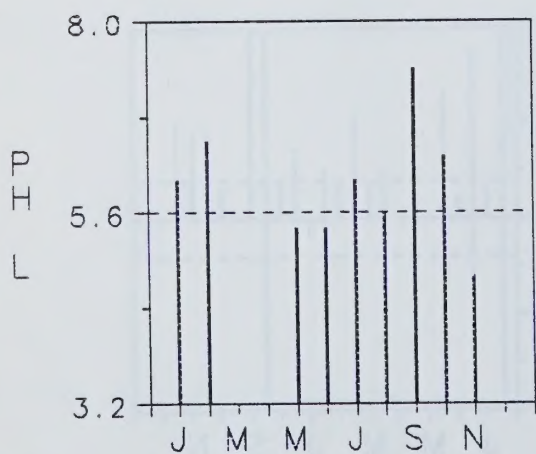
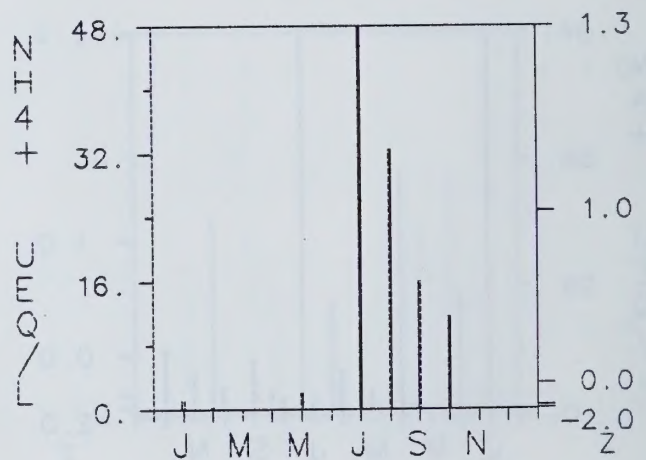
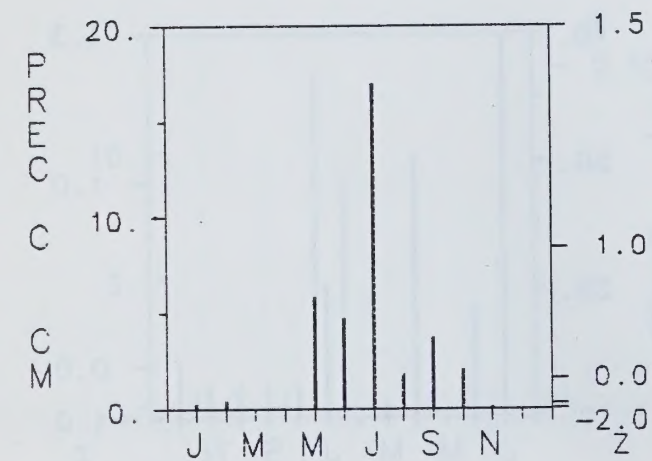
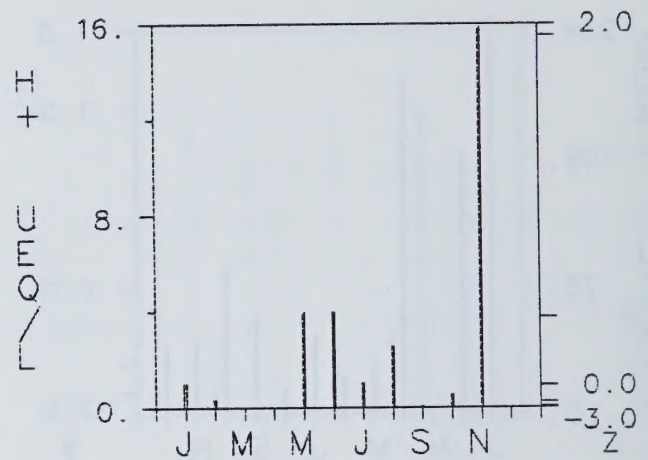
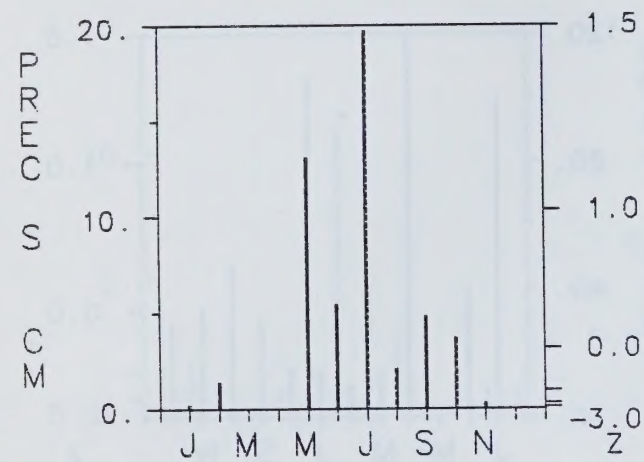
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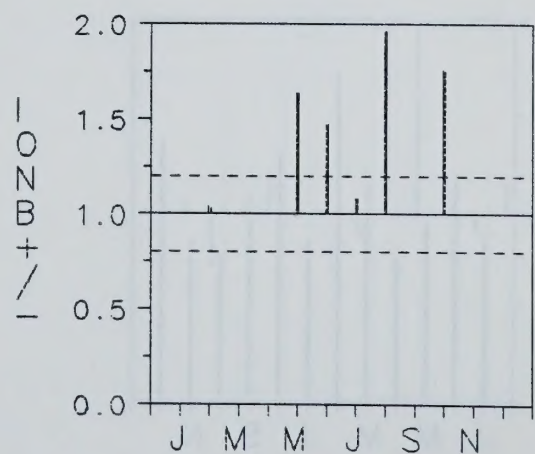
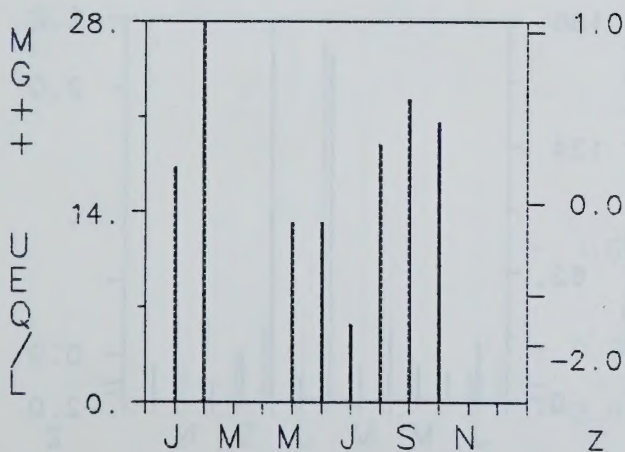
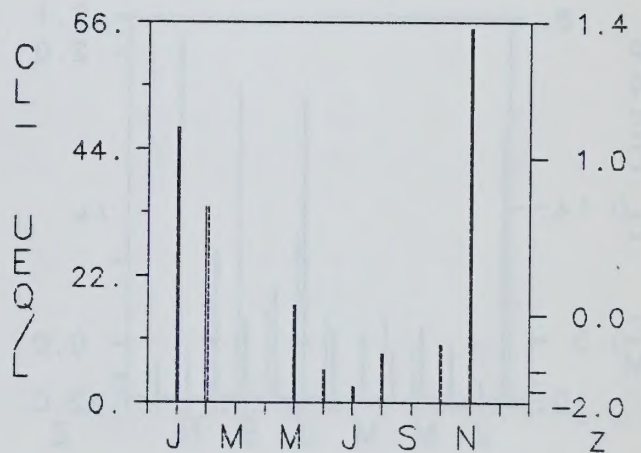
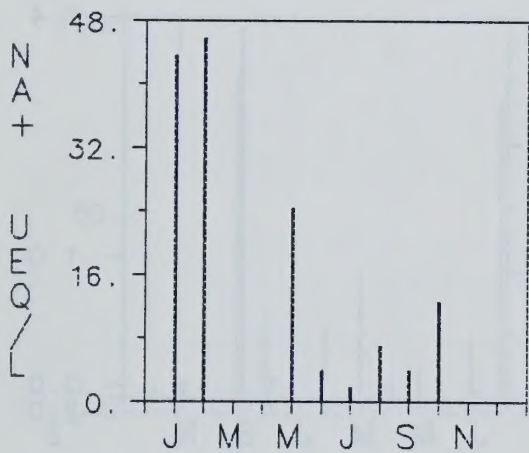
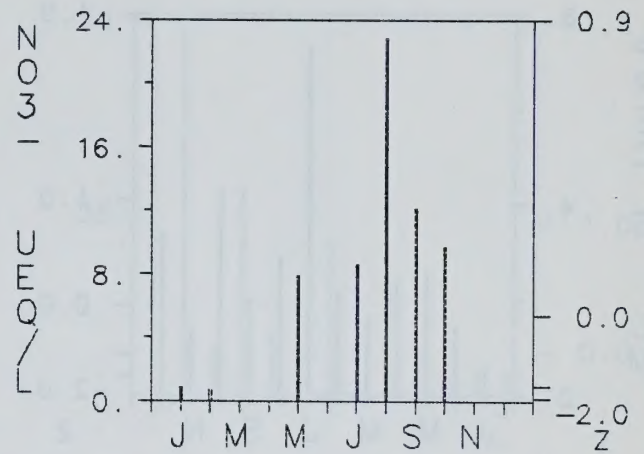
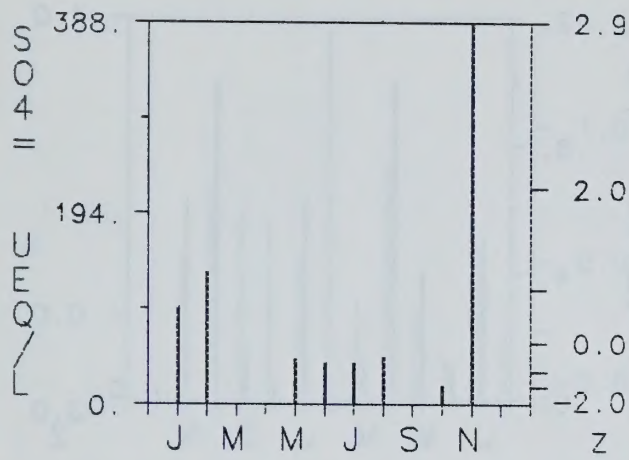
## ROCKY MTN HOUSE

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## ROCKY MTN HOUSE

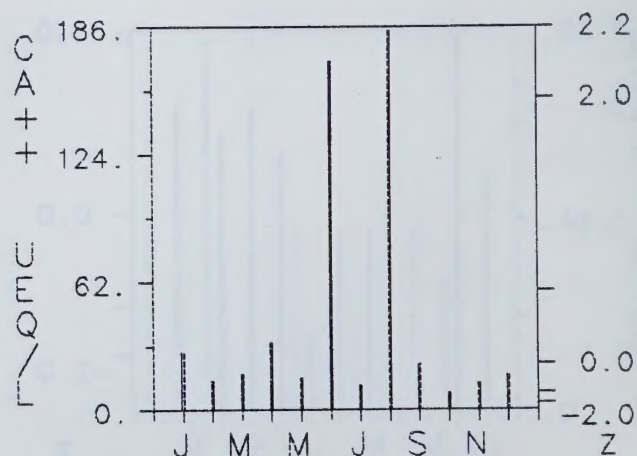
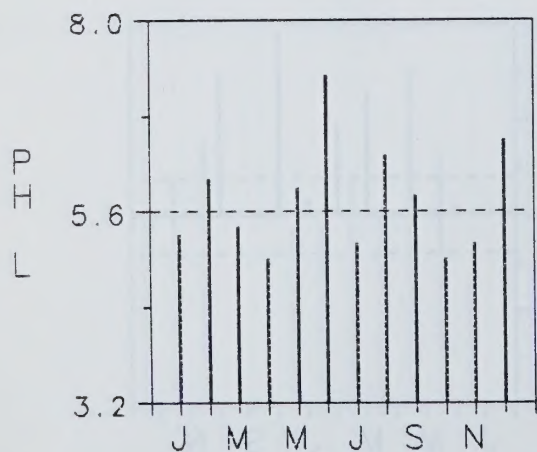
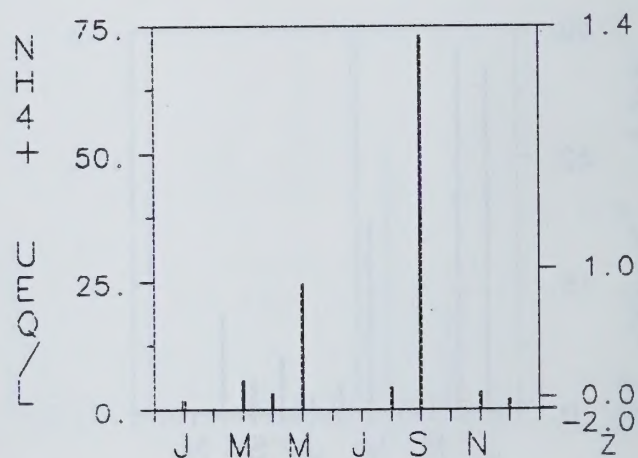
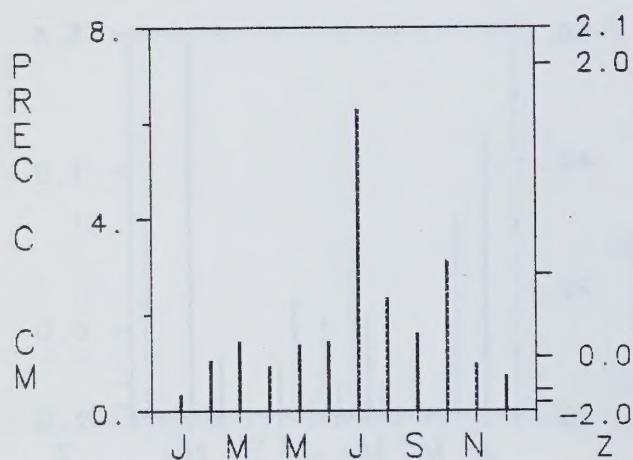
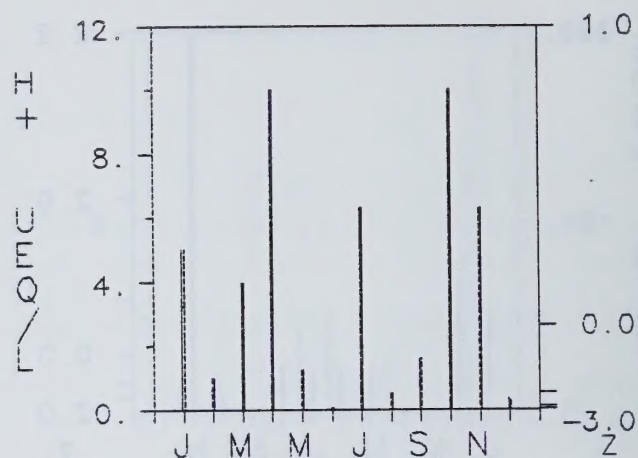
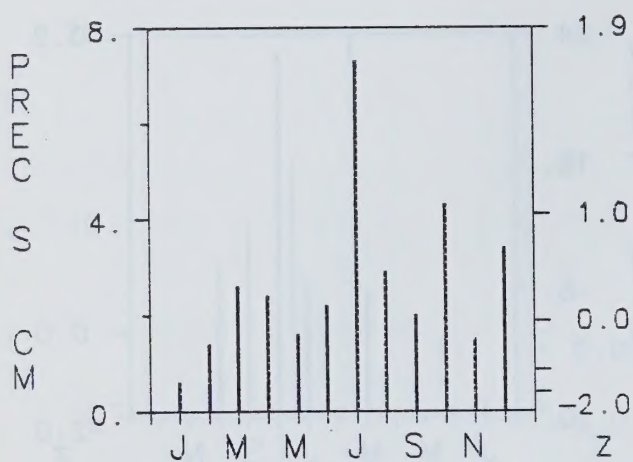
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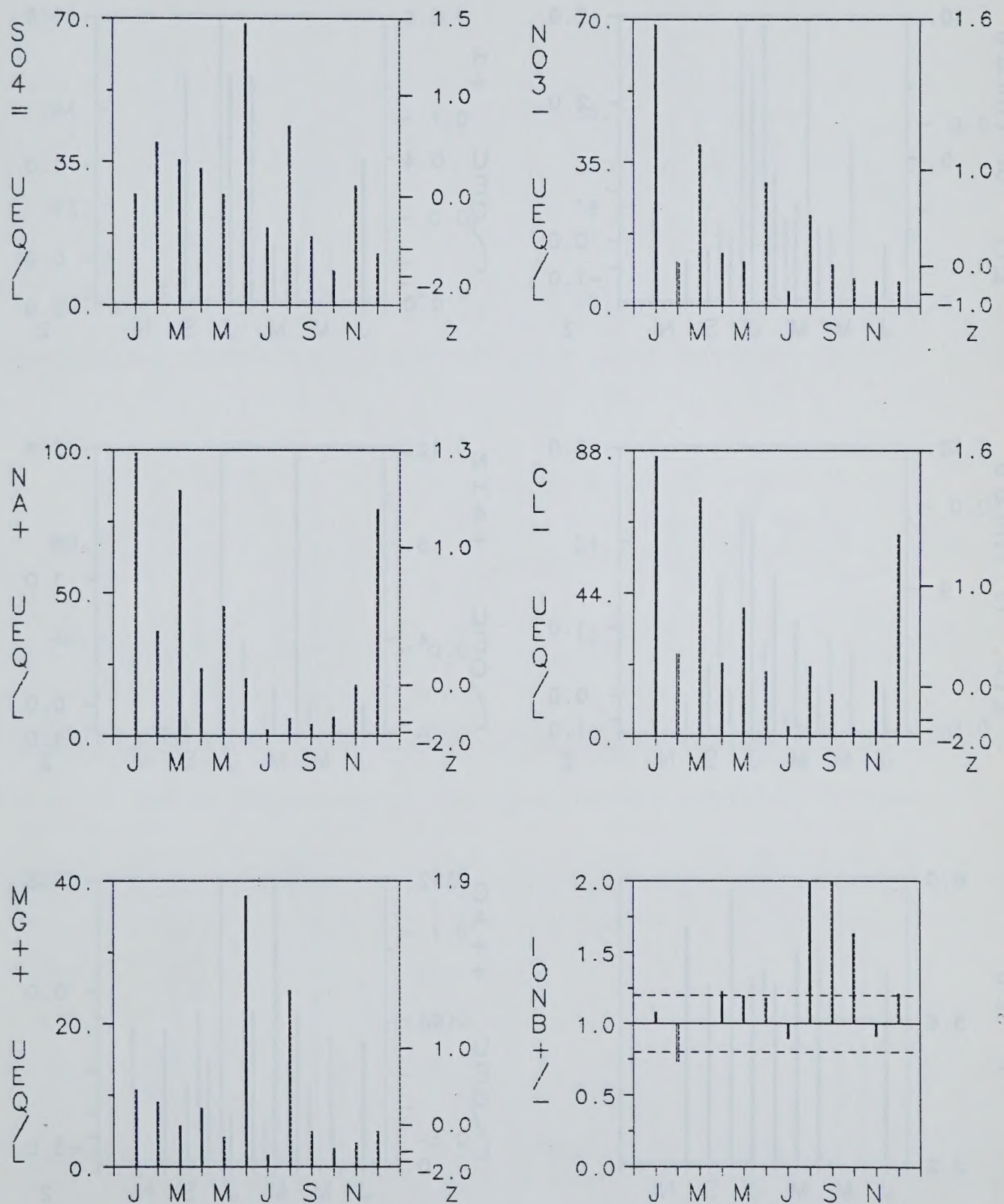
## CREE LAKE

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## CREE LAKE

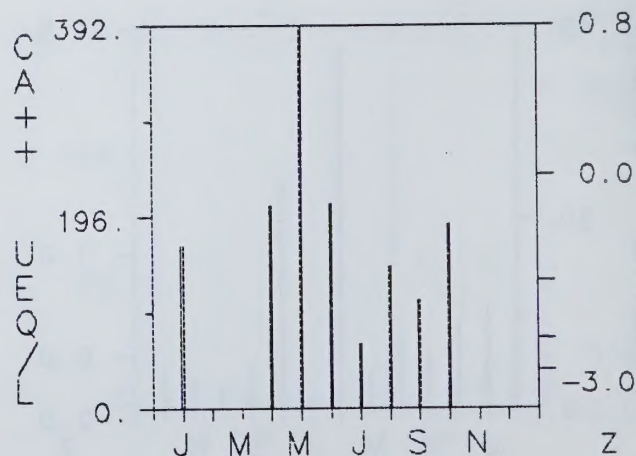
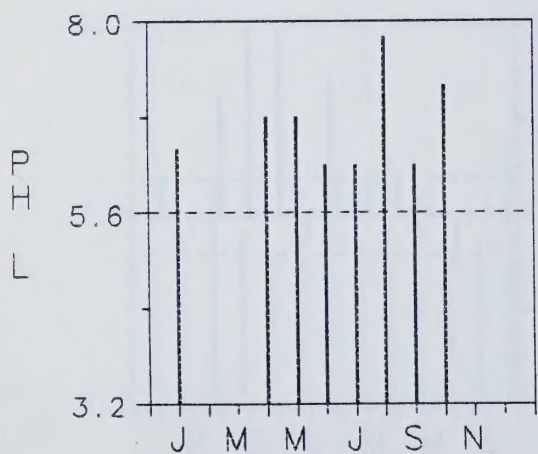
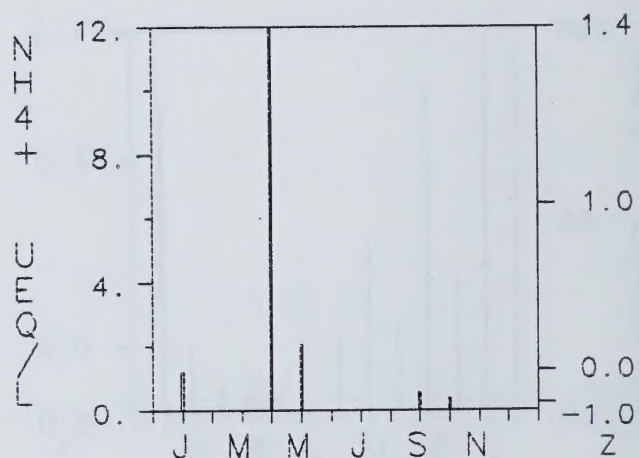
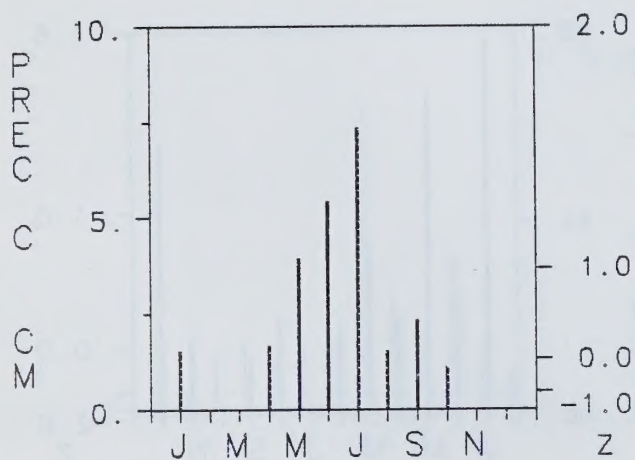
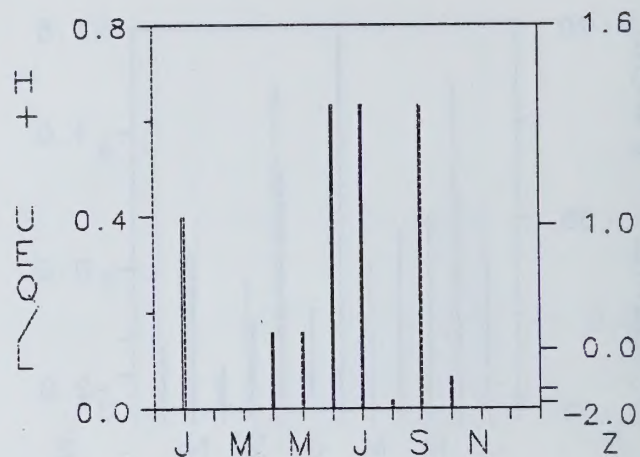
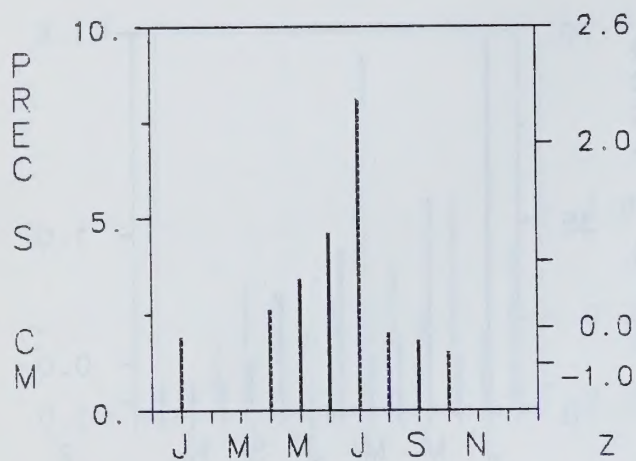
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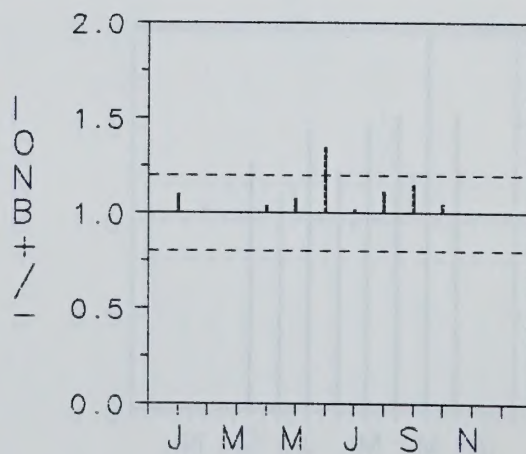
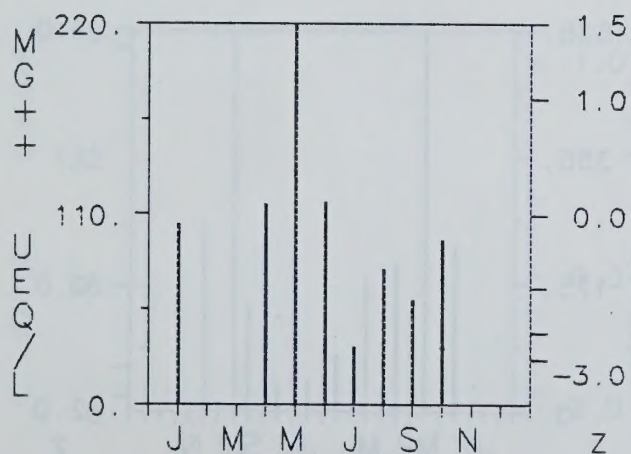
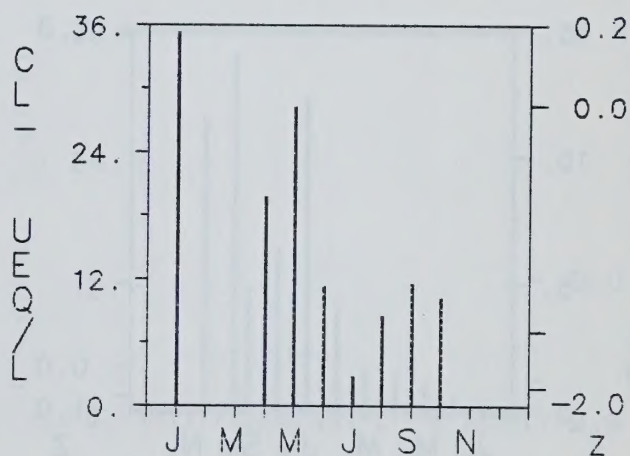
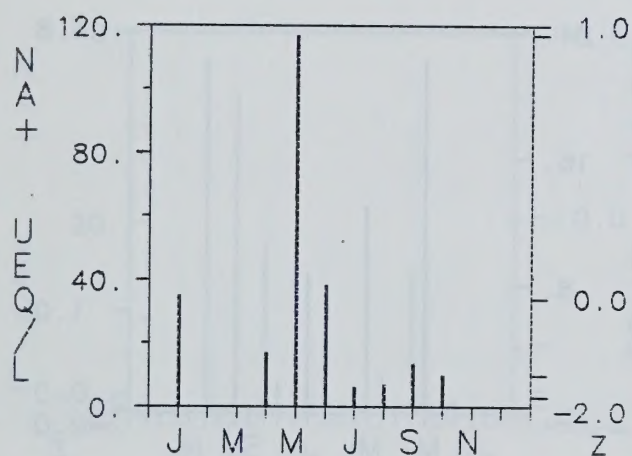
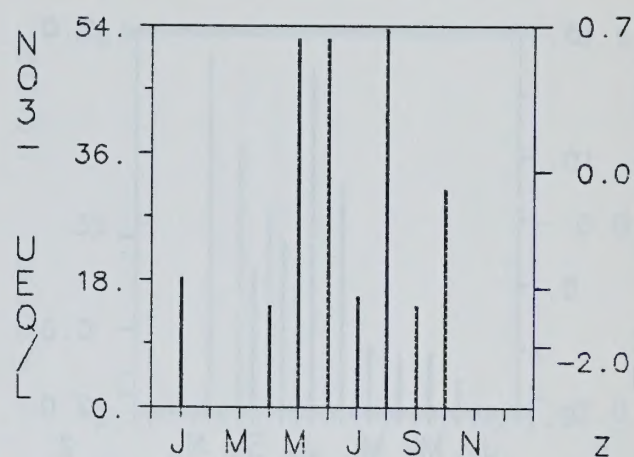
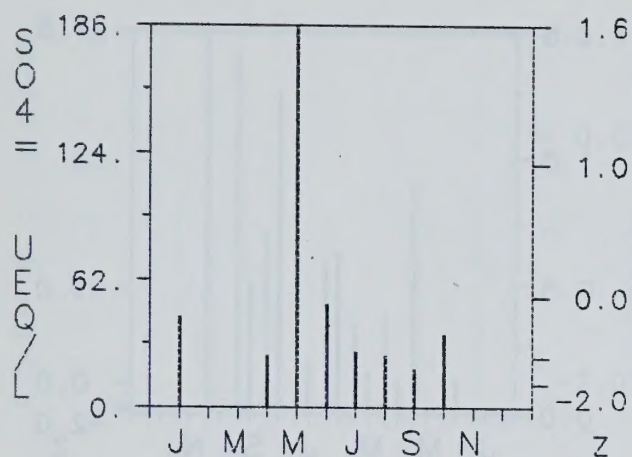
## KINDERSLEY

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## KINDERSLEY W

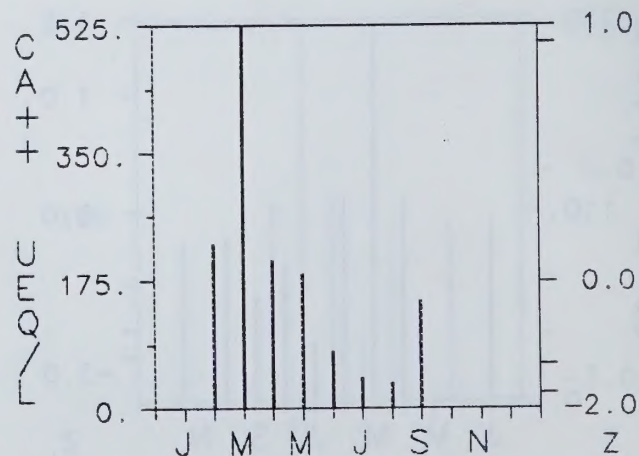
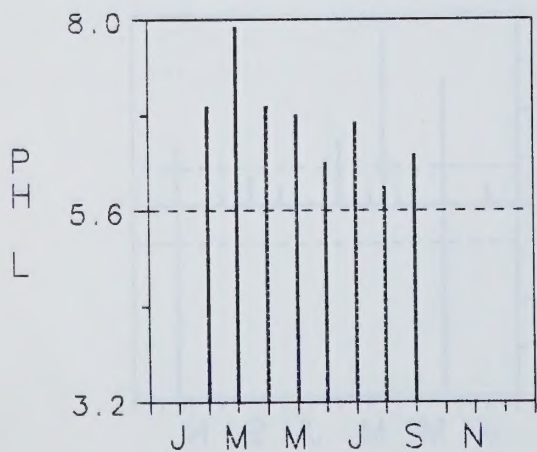
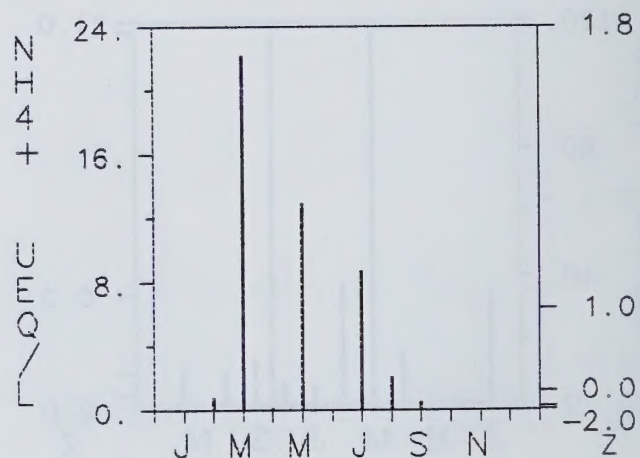
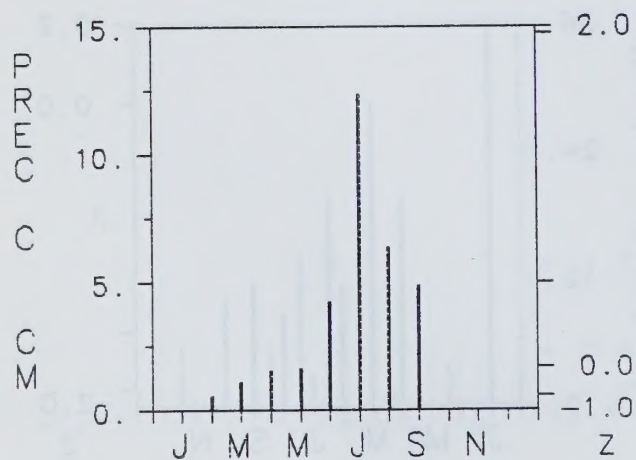
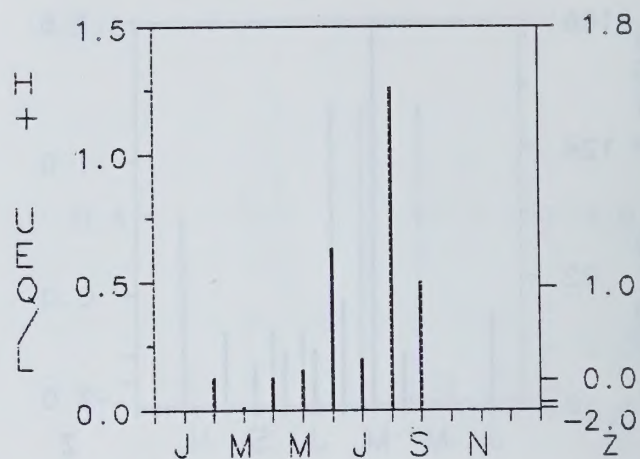
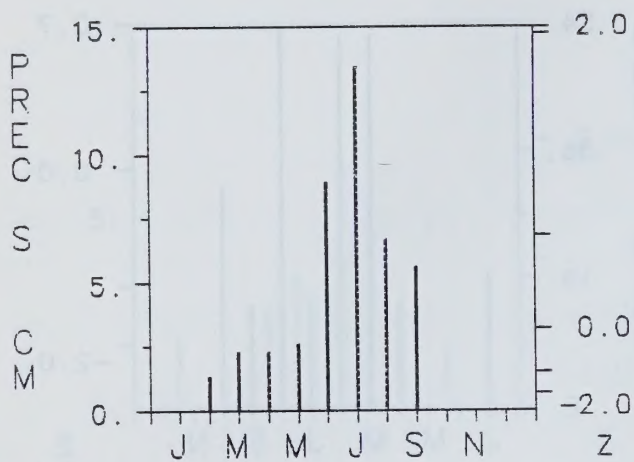
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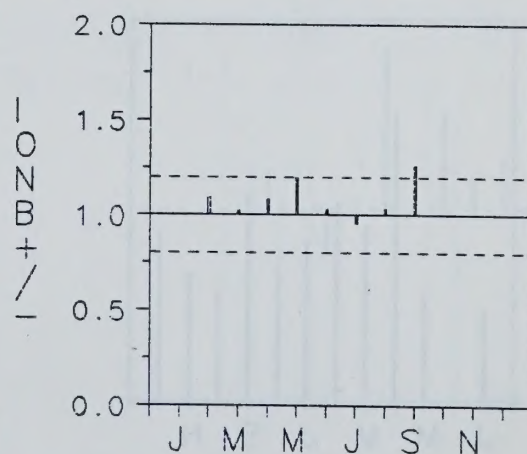
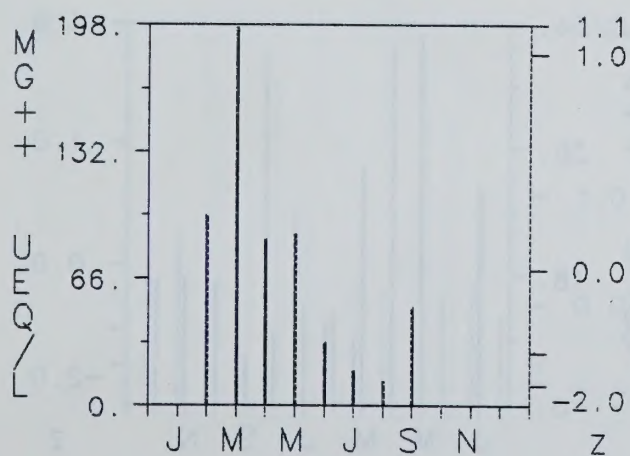
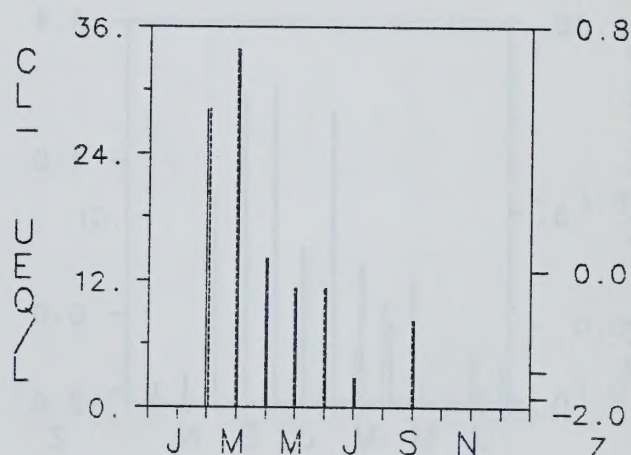
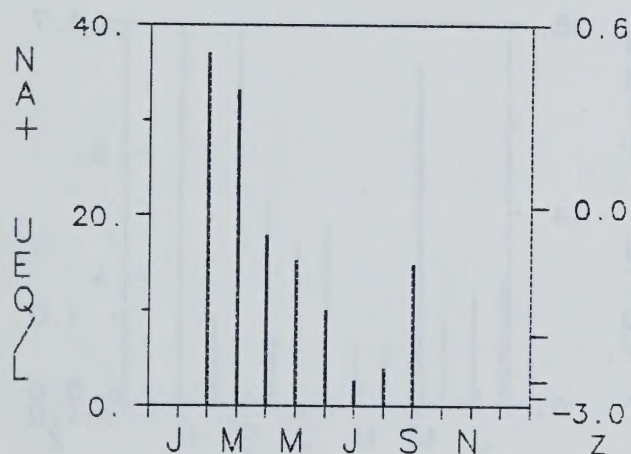
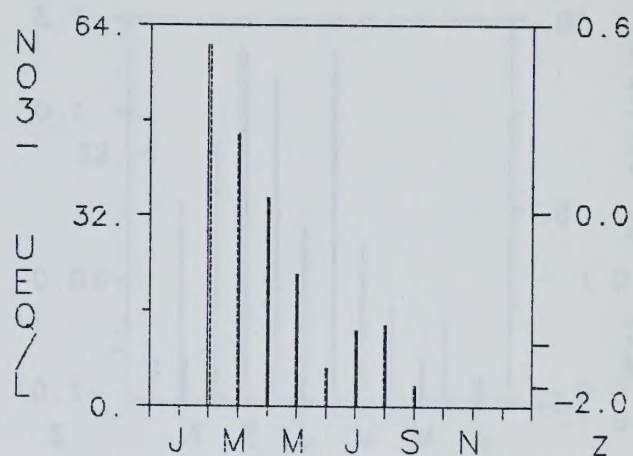
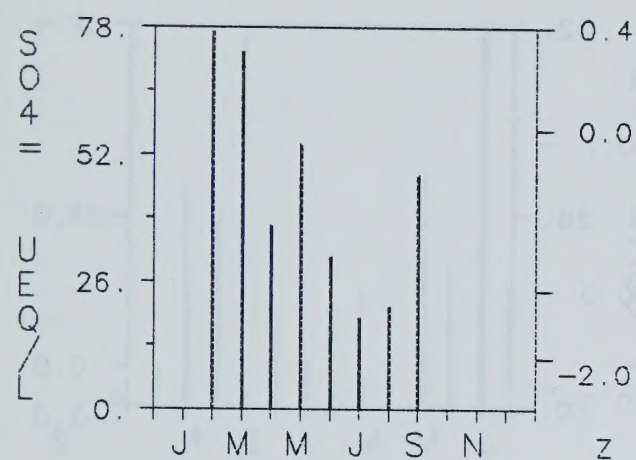
## WYNYARD

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## WYNYARD

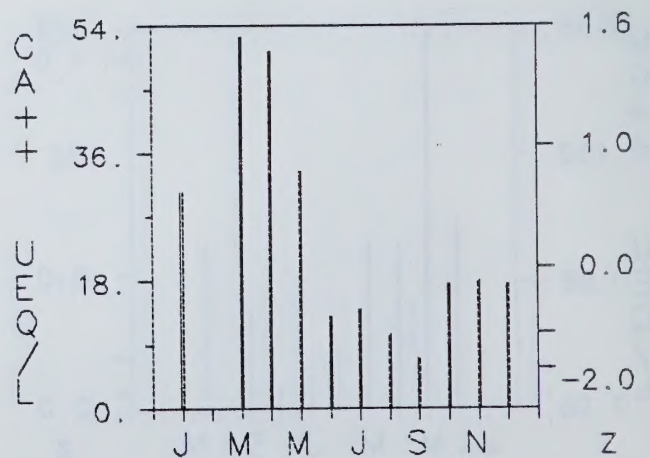
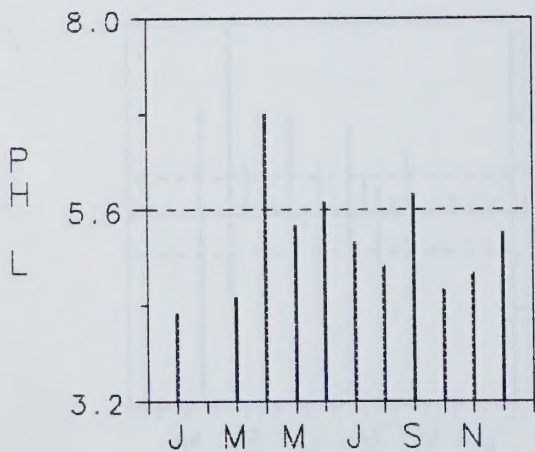
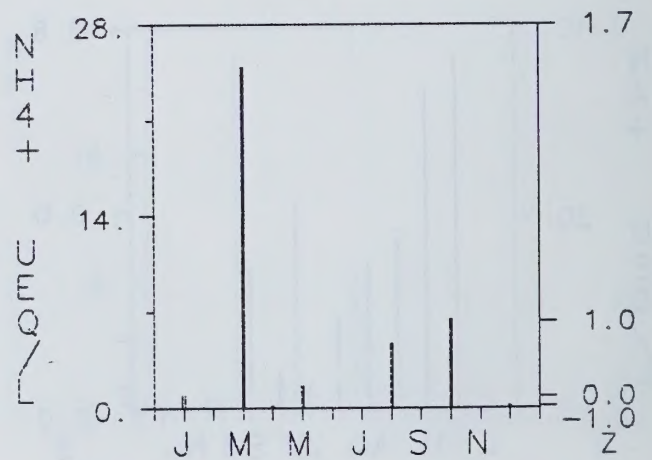
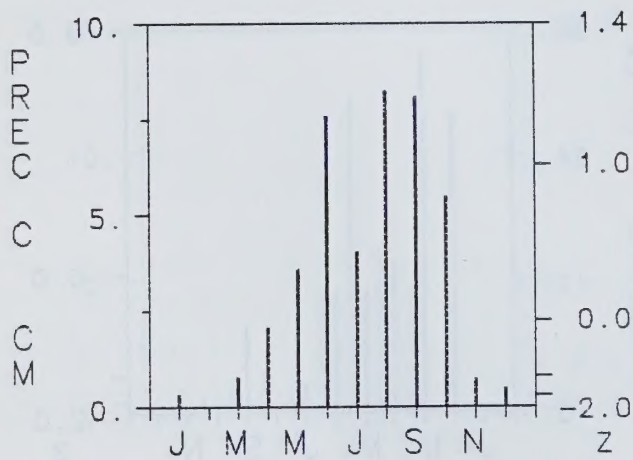
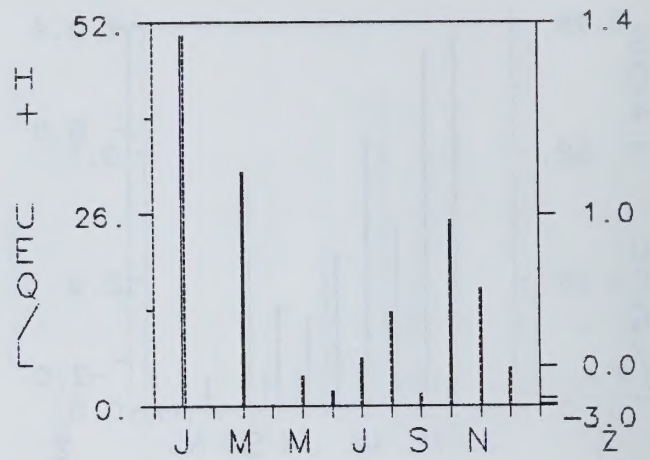
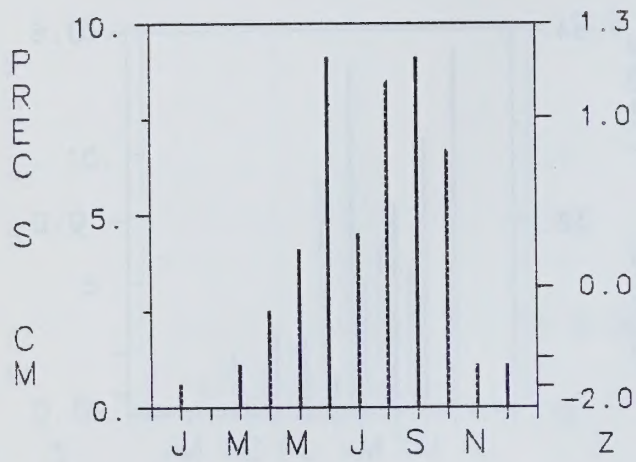
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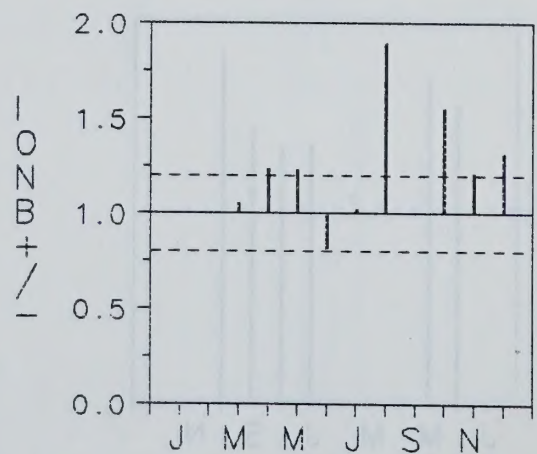
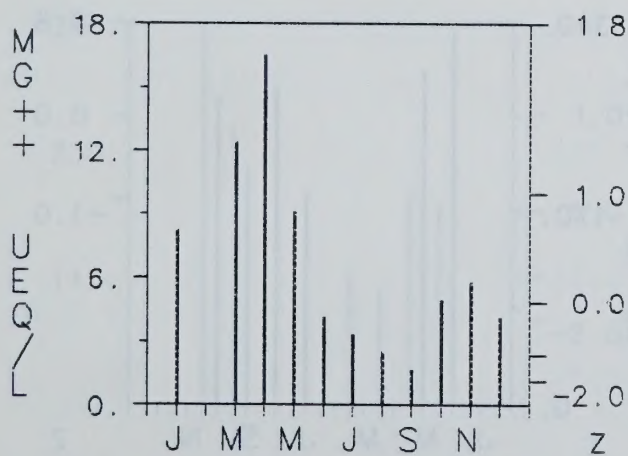
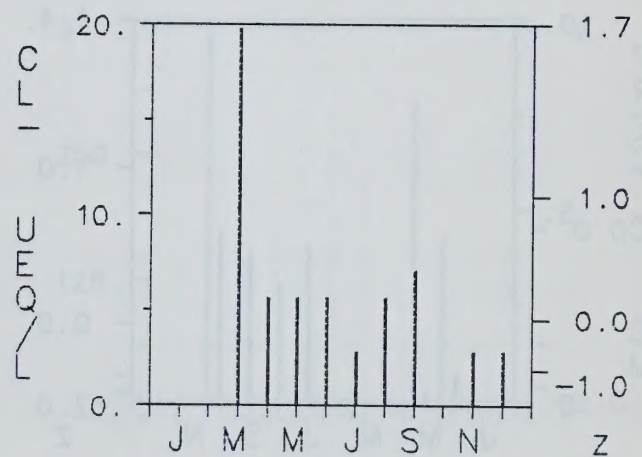
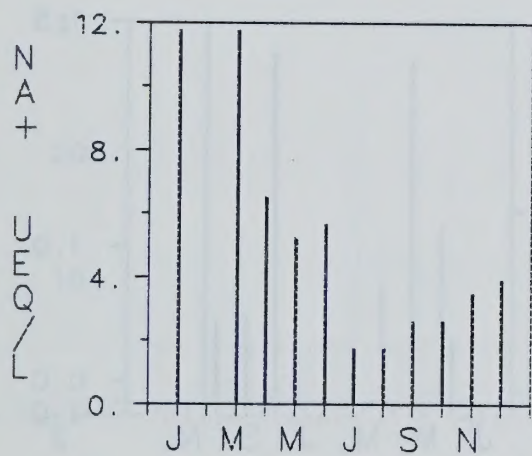
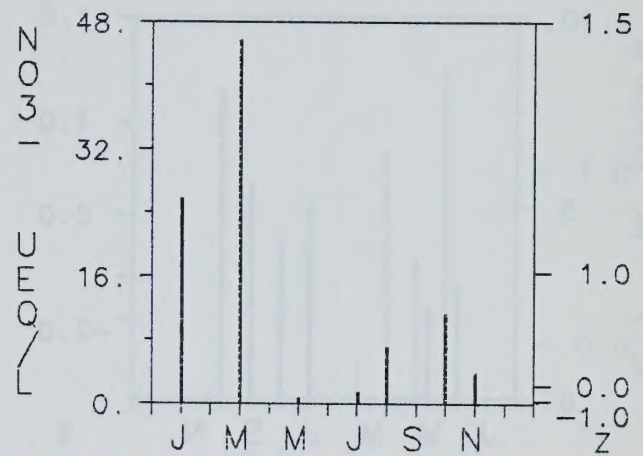
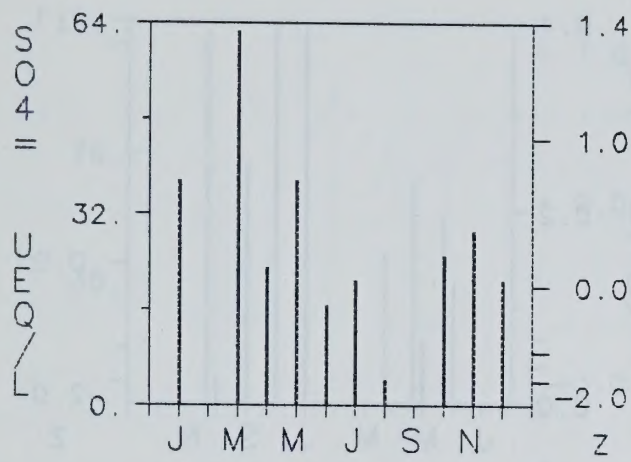
BISSETT

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BISSETT

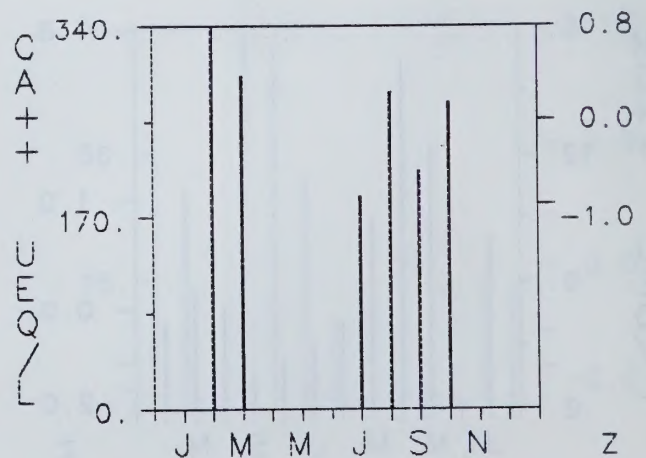
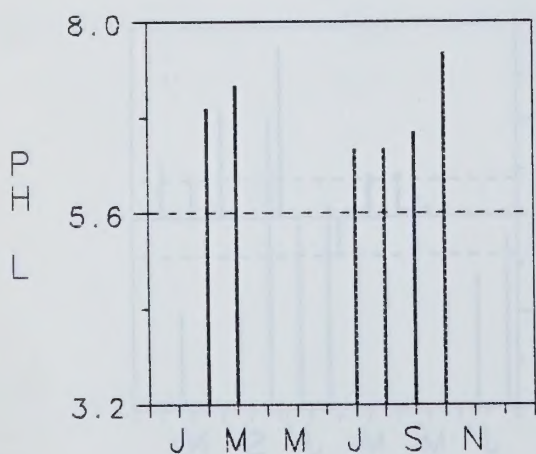
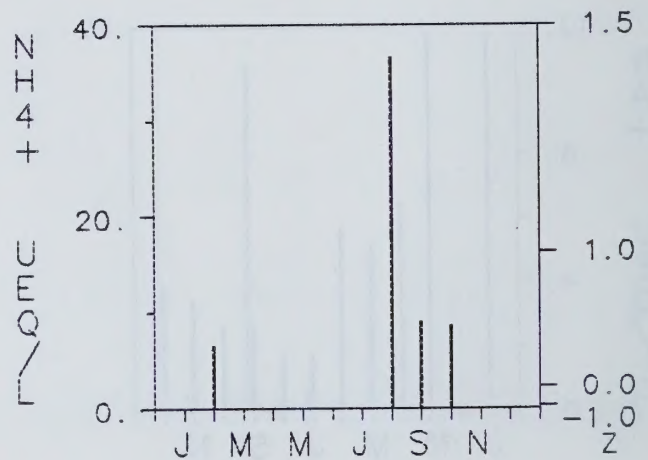
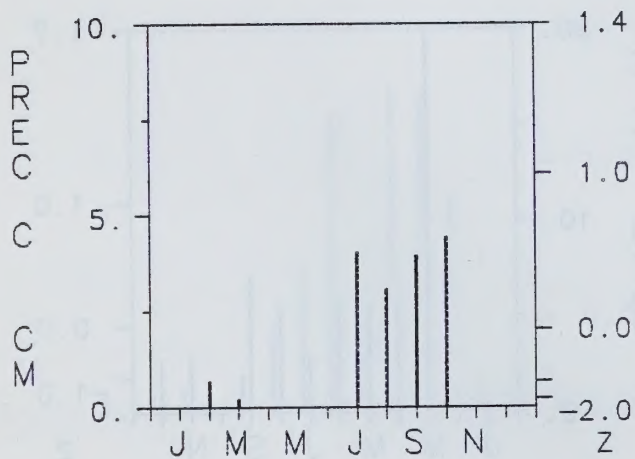
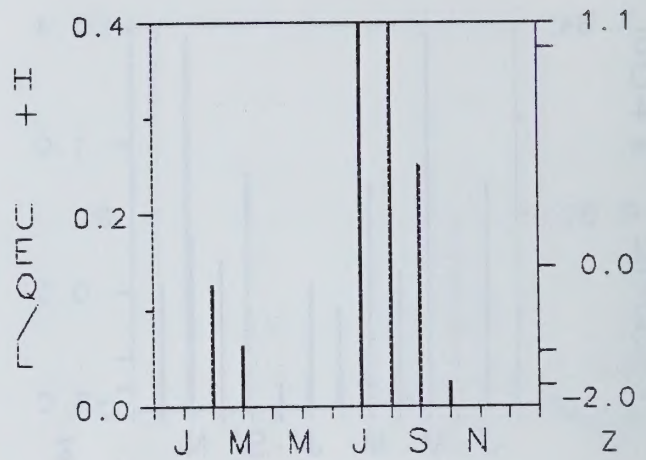
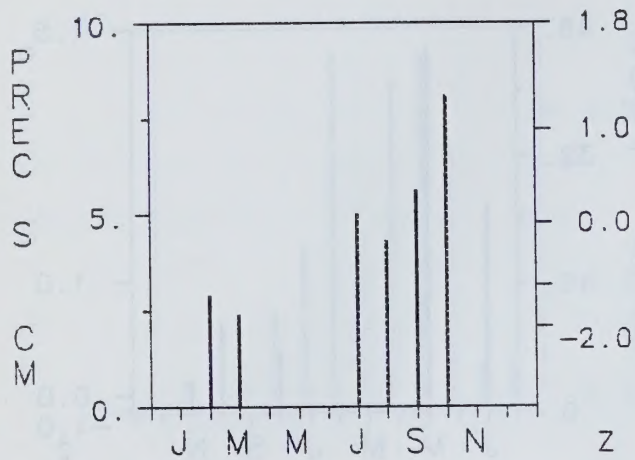
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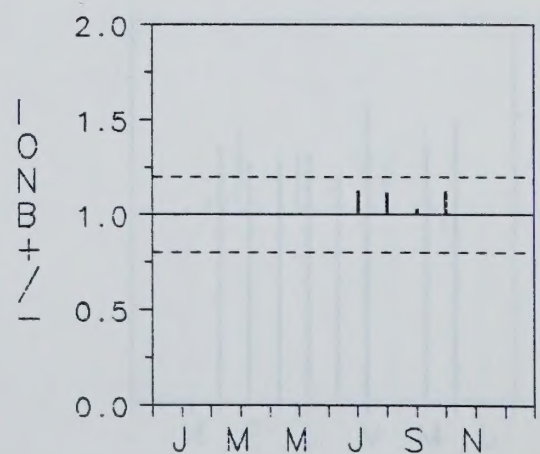
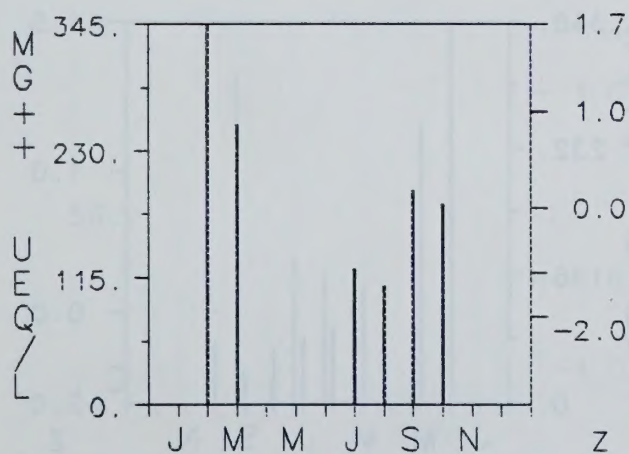
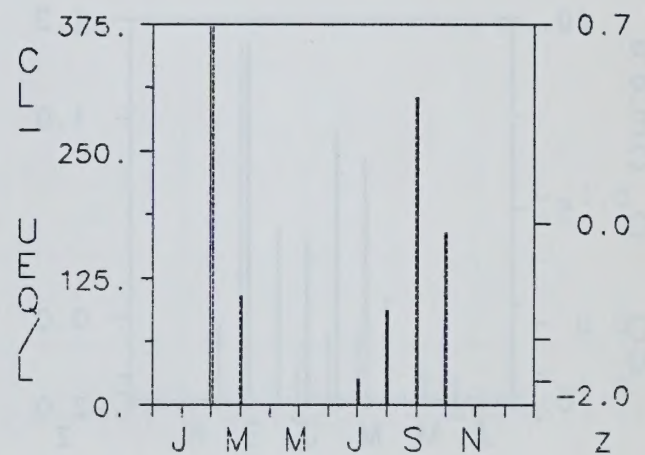
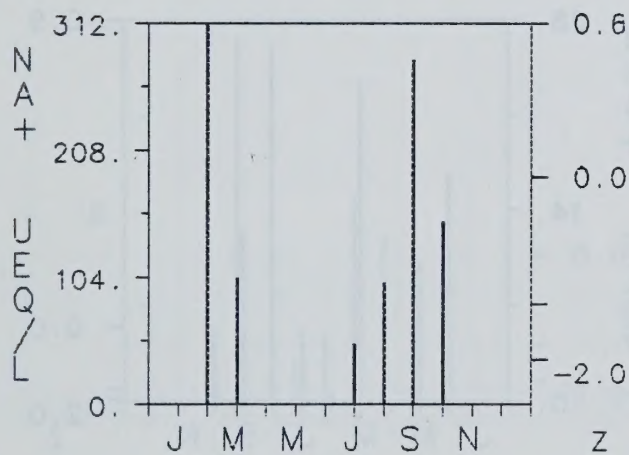
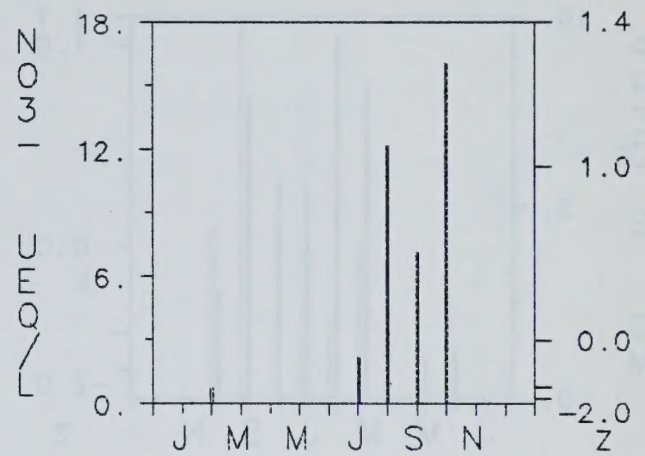
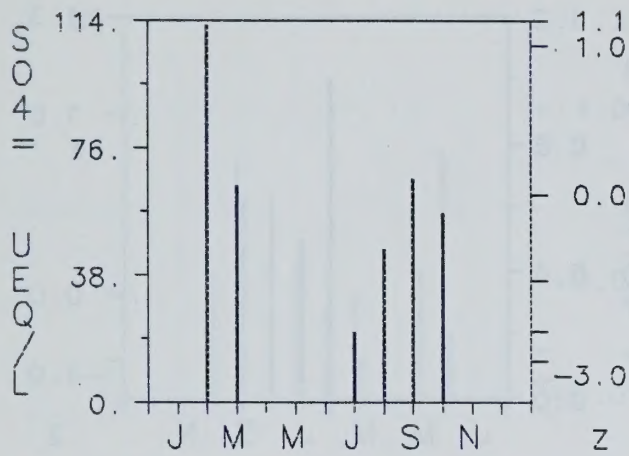
## CHURCHILL

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## CHURCHILL

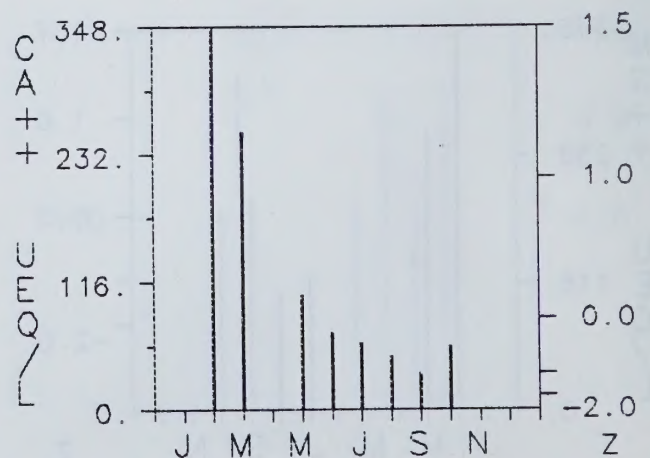
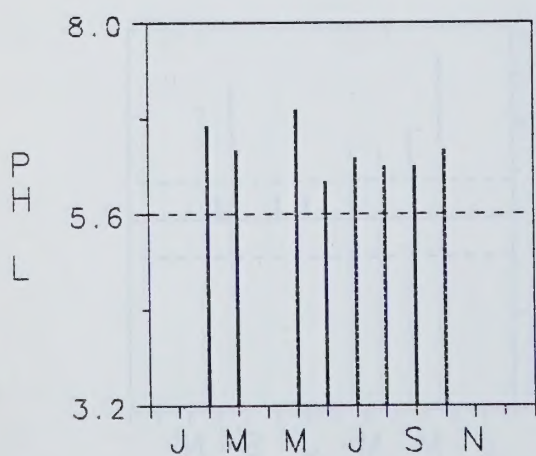
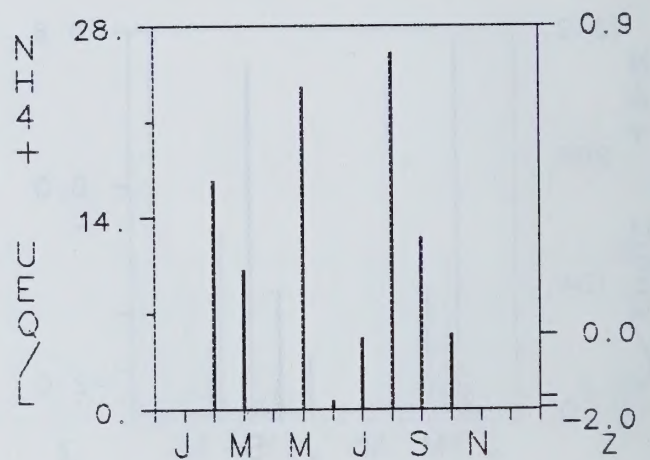
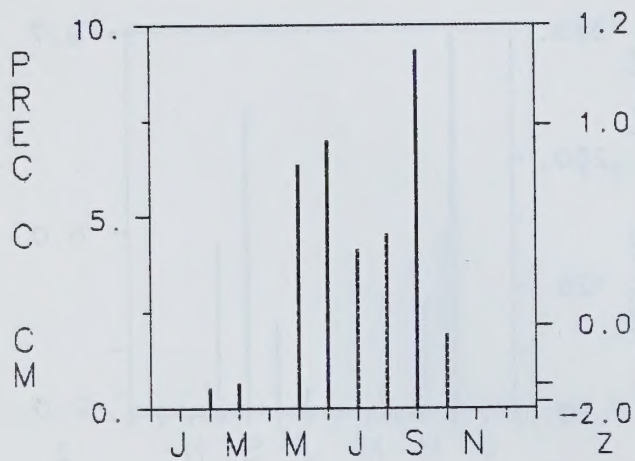
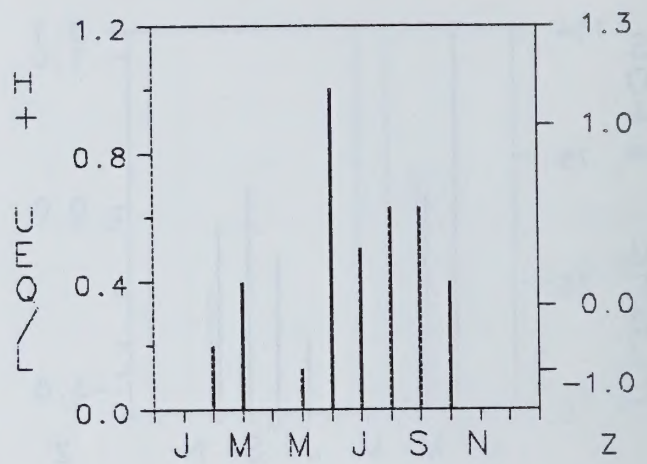
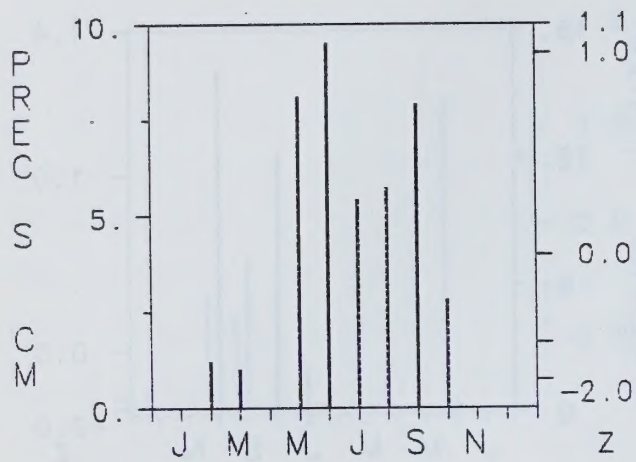
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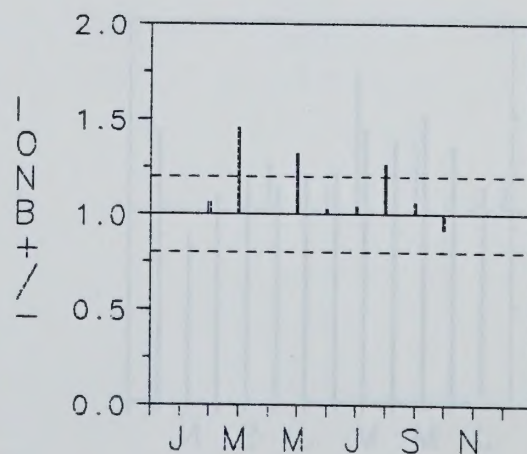
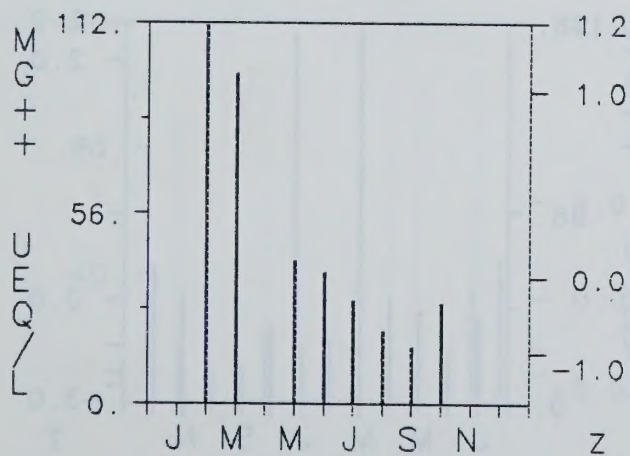
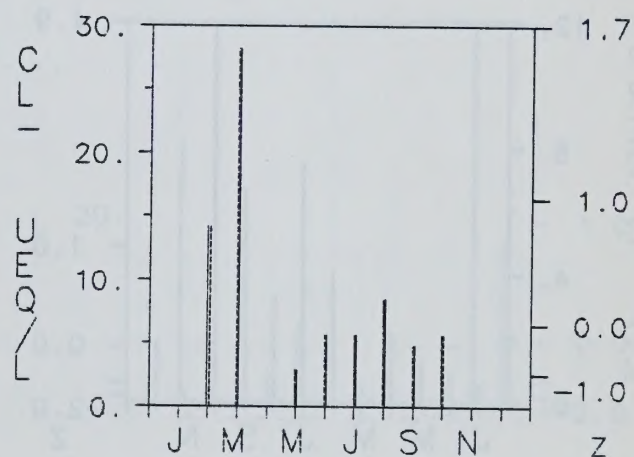
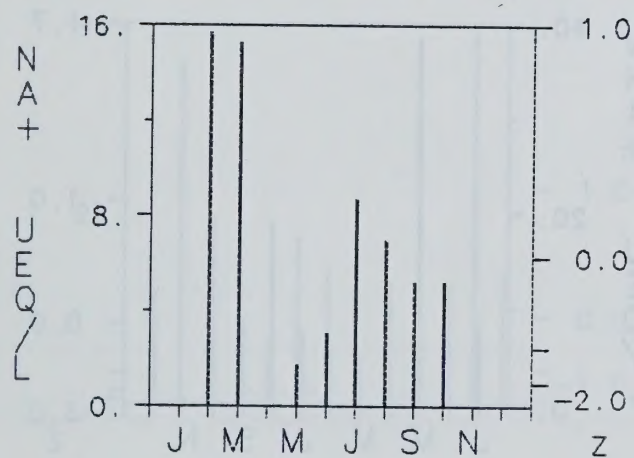
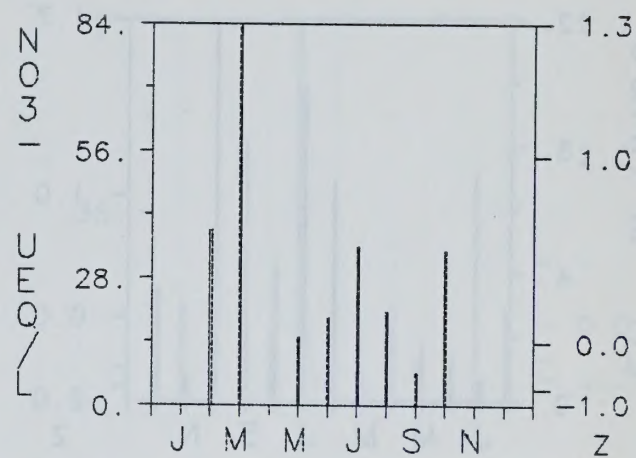
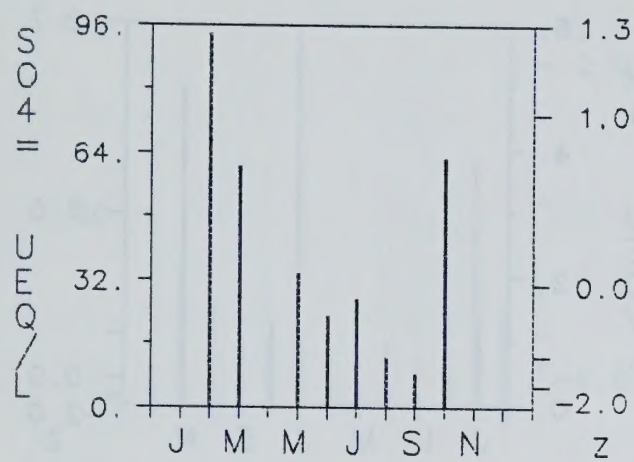
## DAUPHIN

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## DAUPHIN

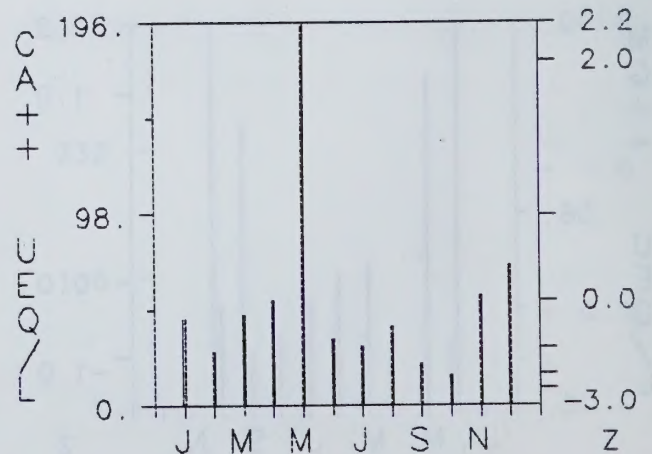
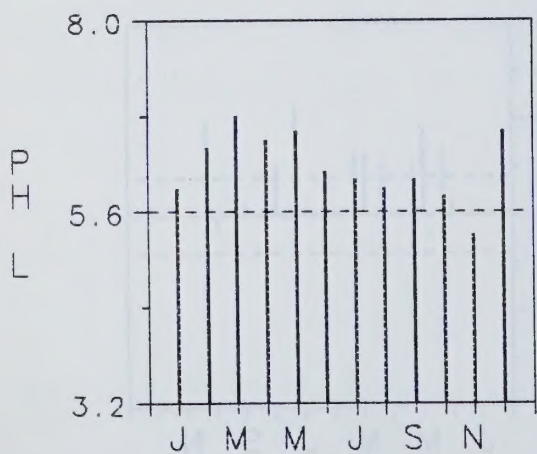
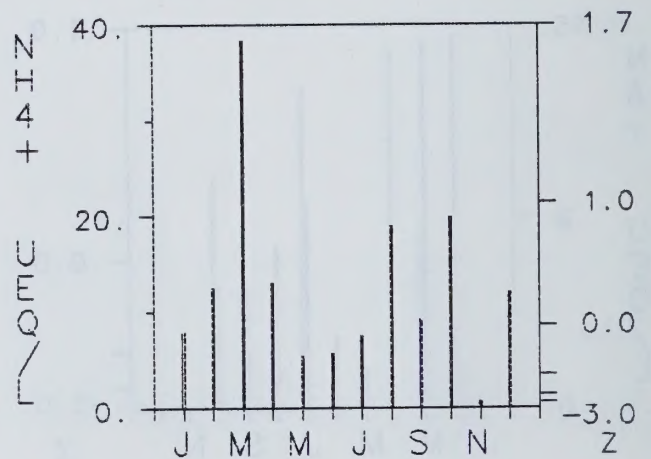
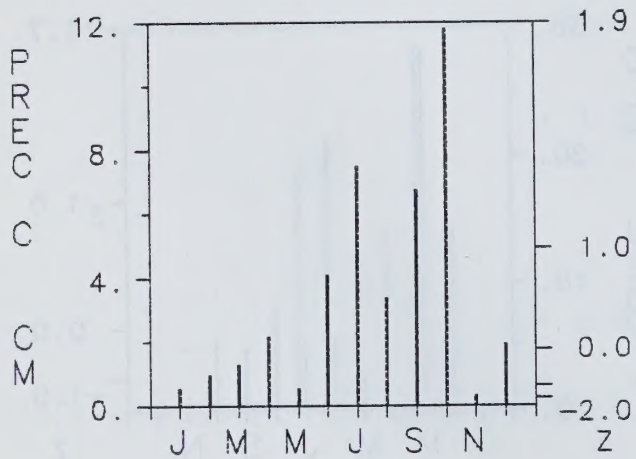
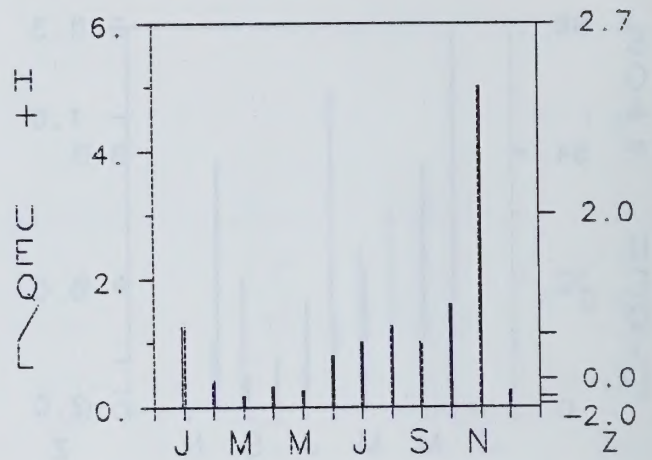
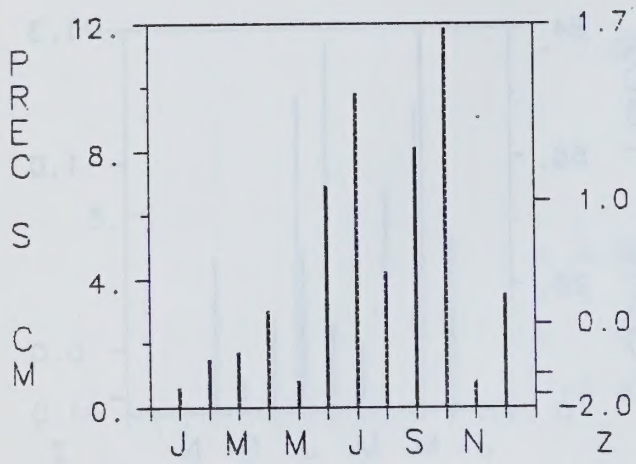
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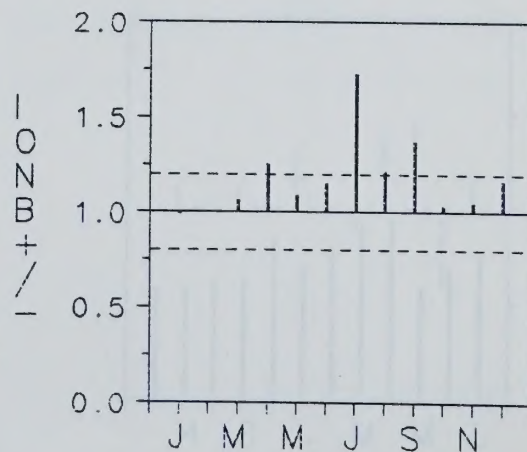
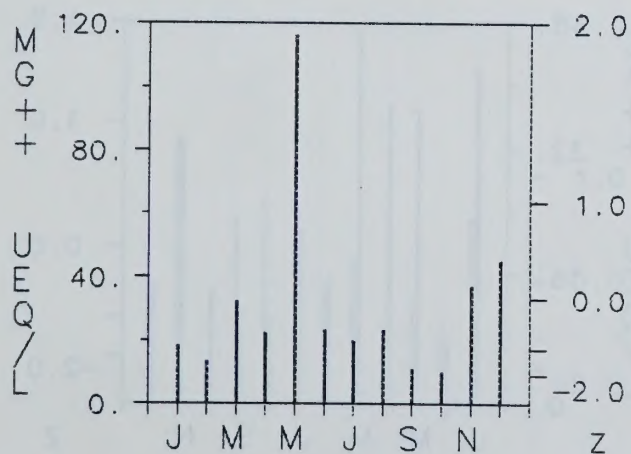
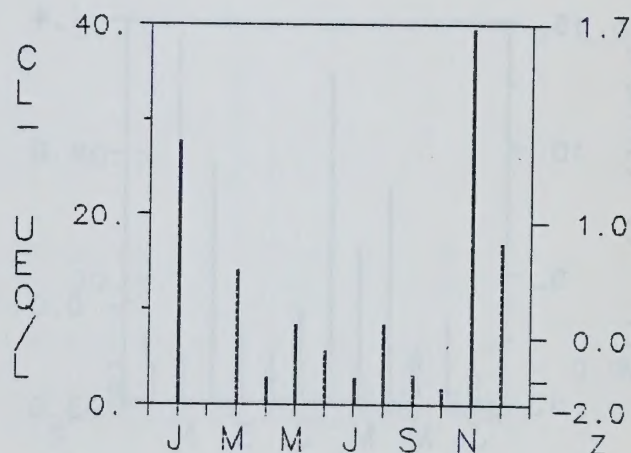
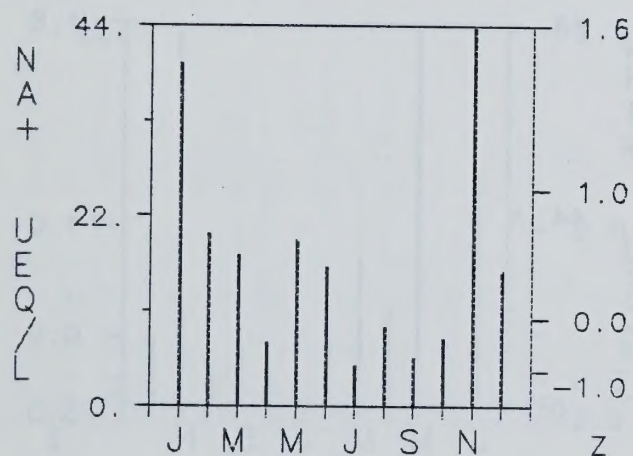
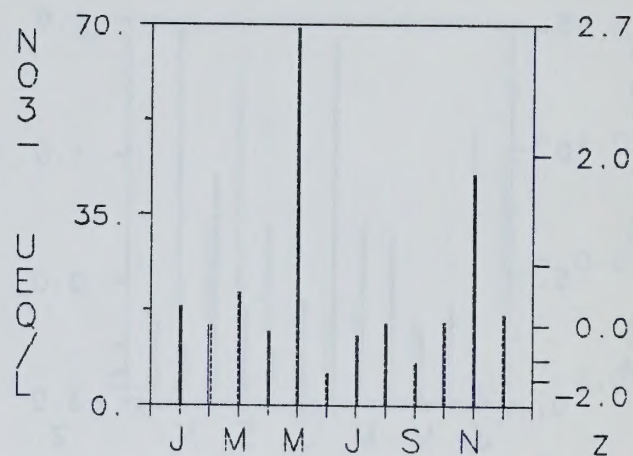
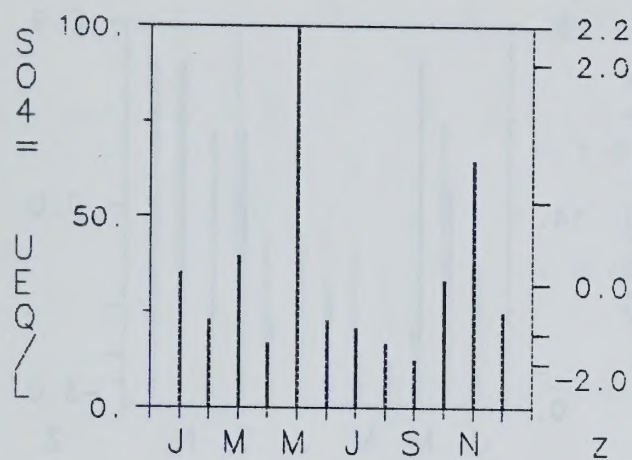
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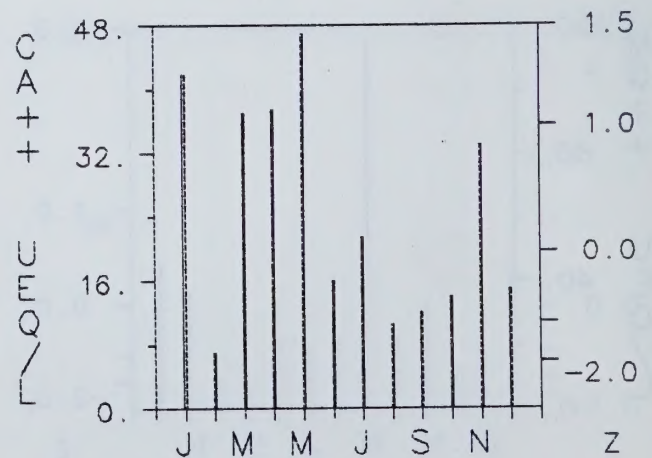
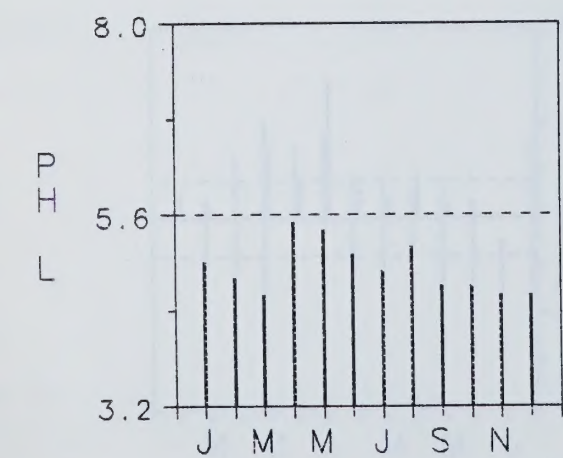
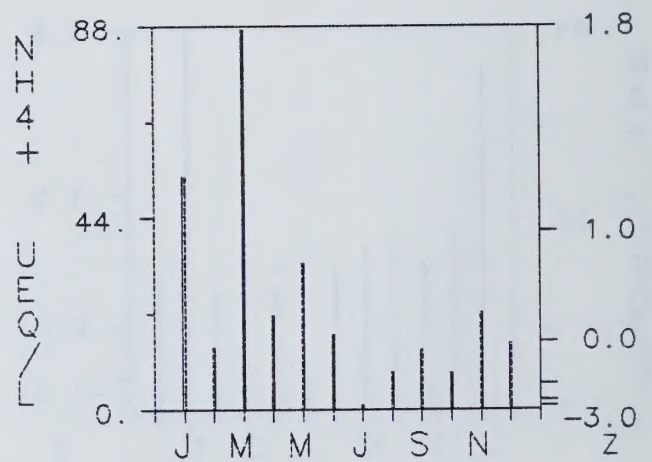
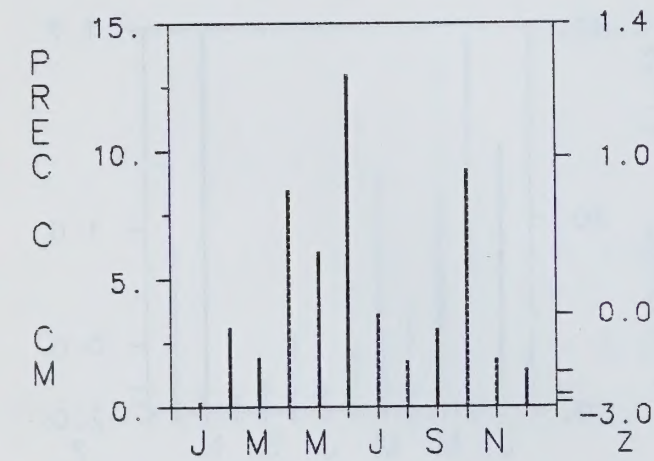
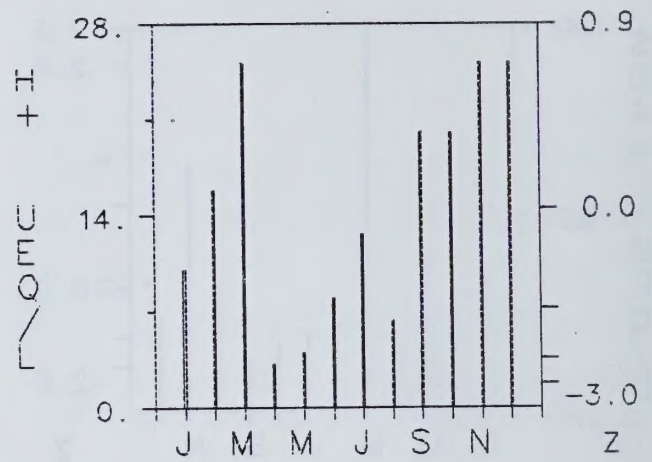
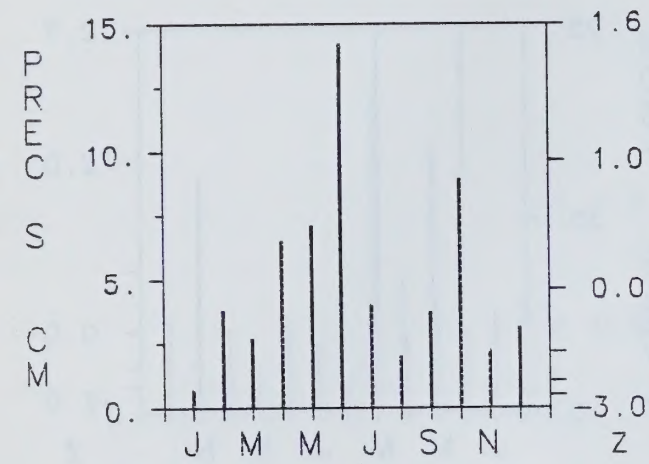
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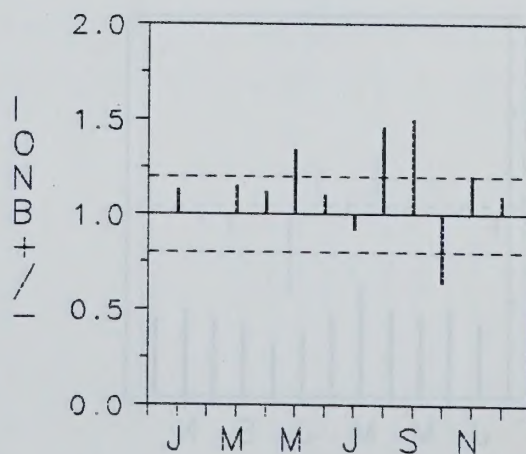
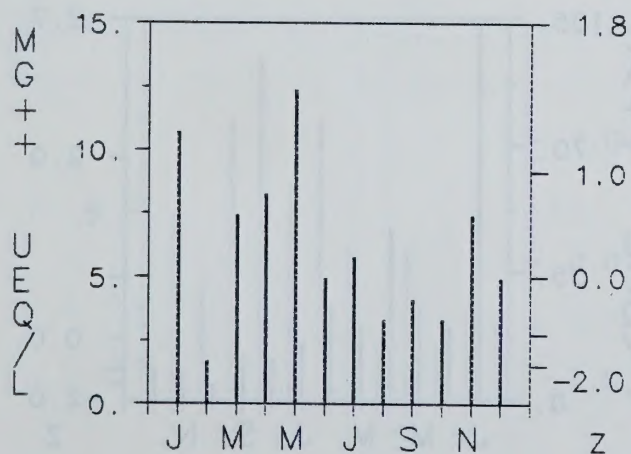
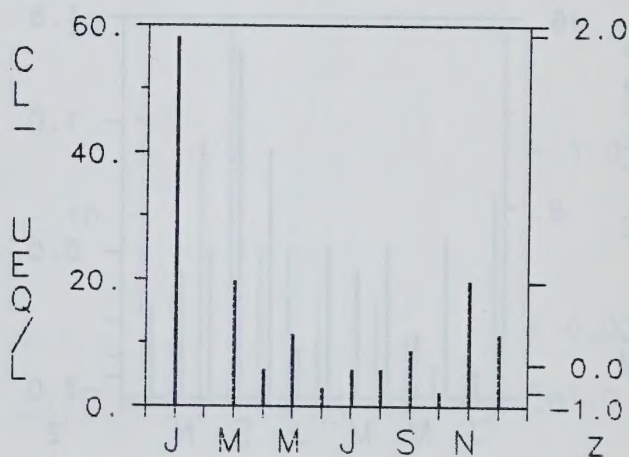
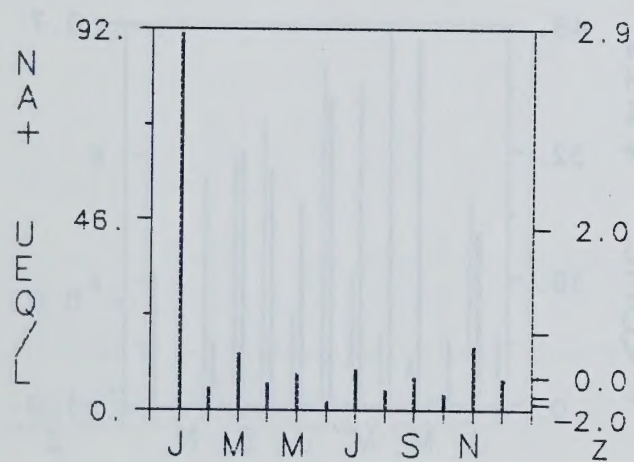
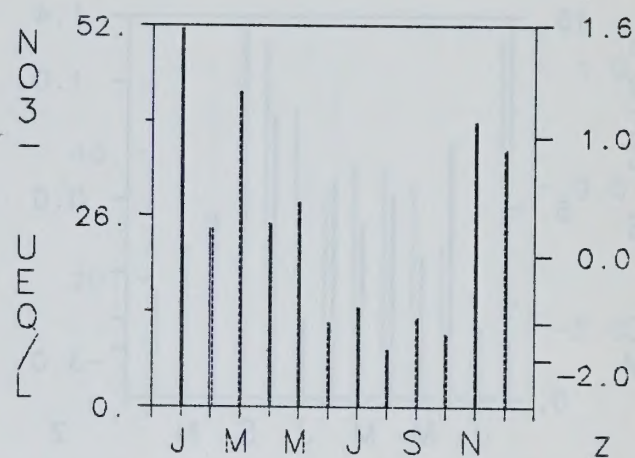
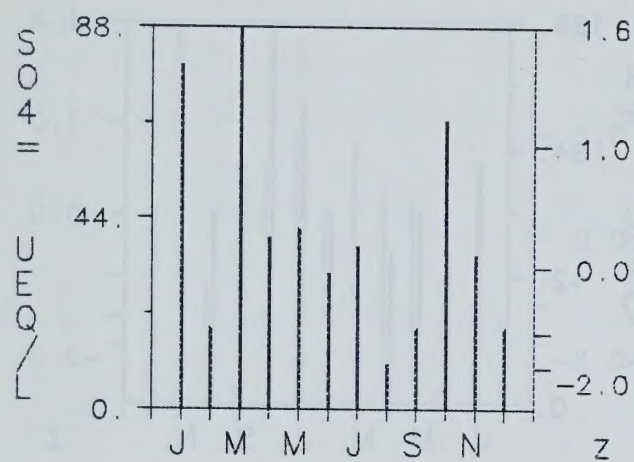
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## ATIKOKAN

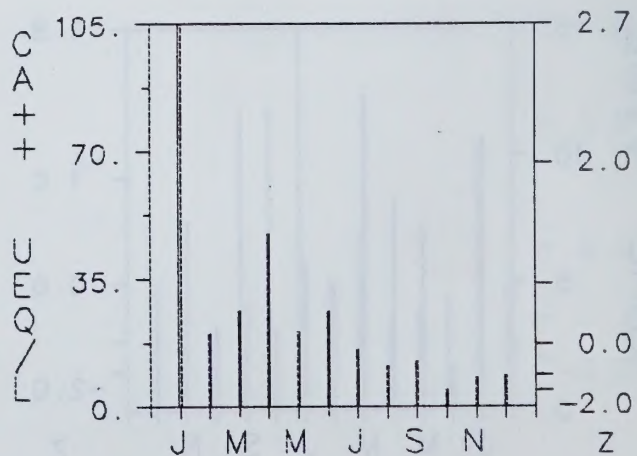
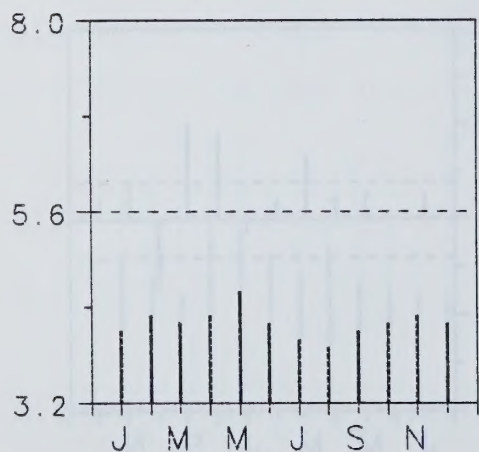
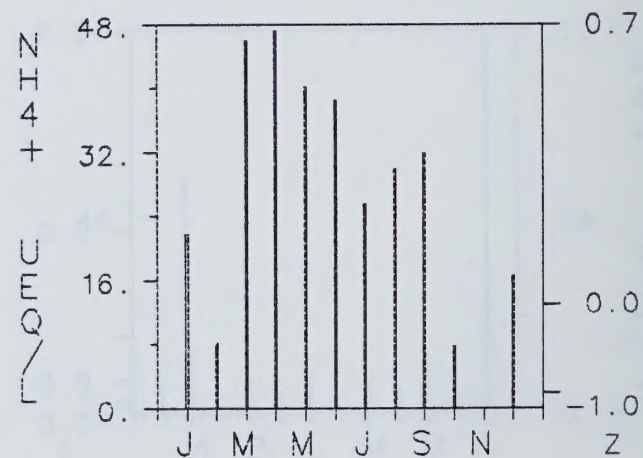
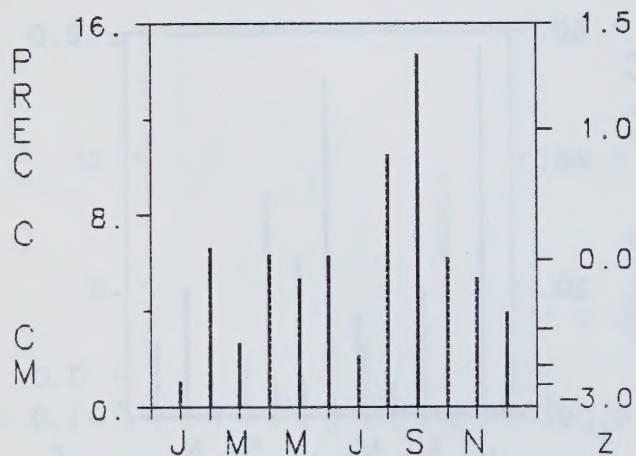
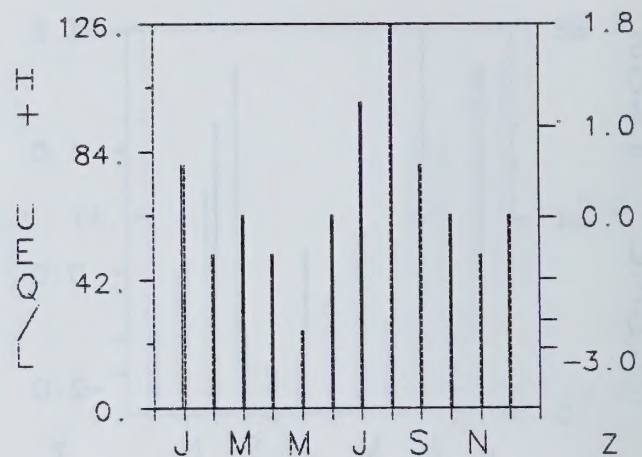
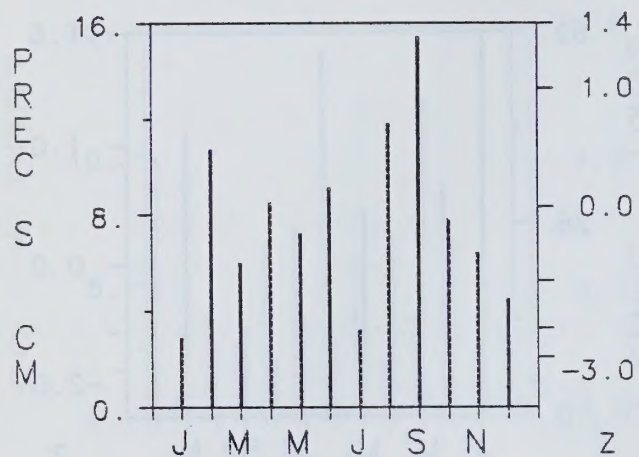
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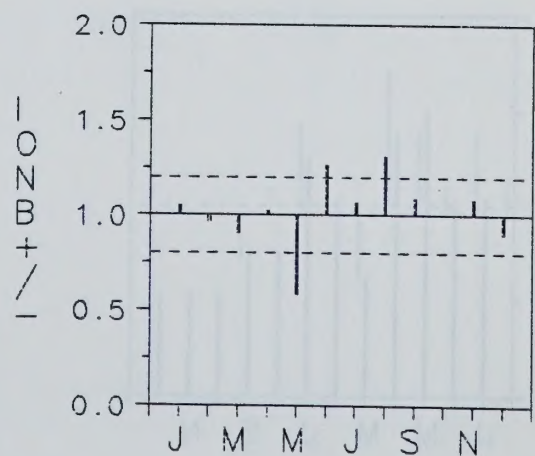
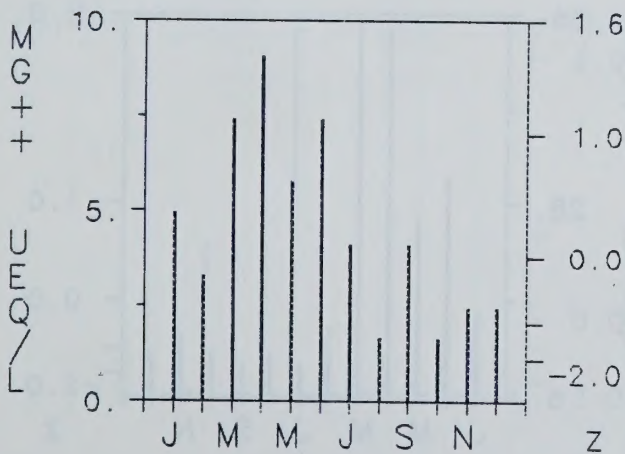
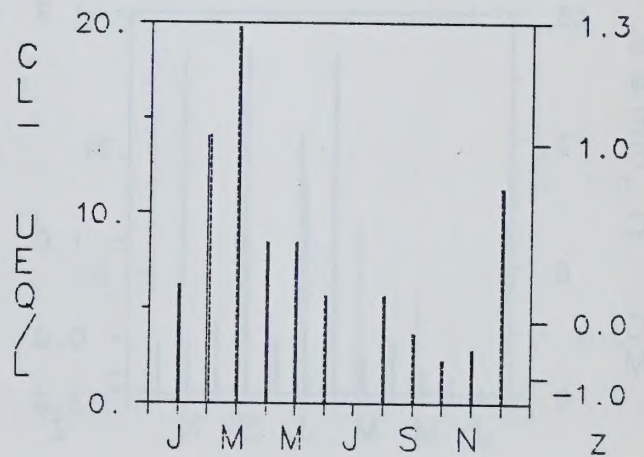
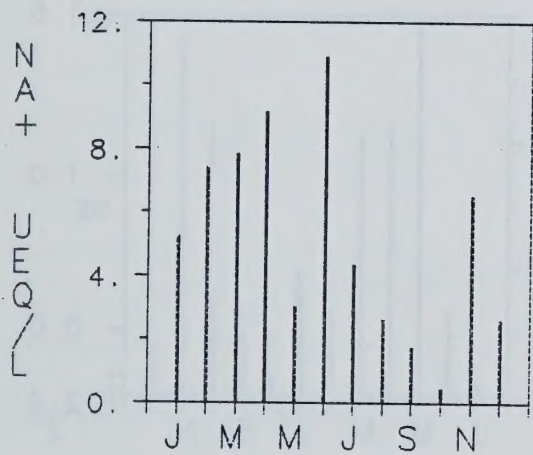
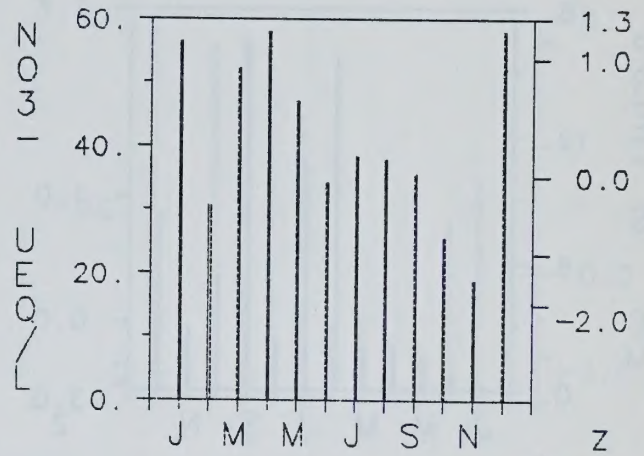
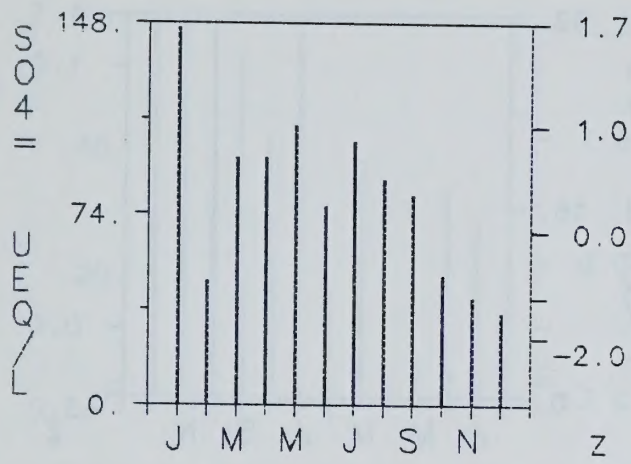
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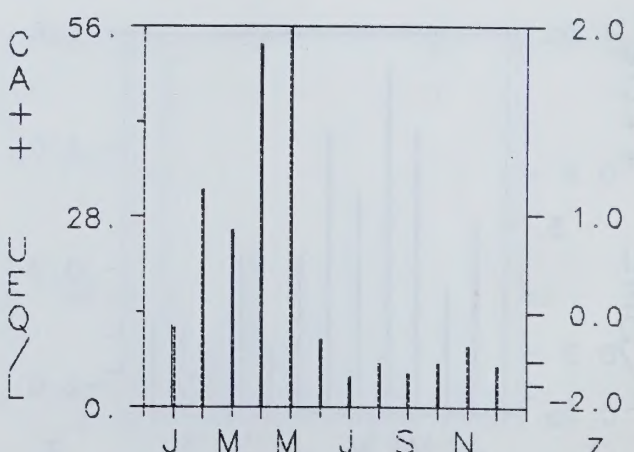
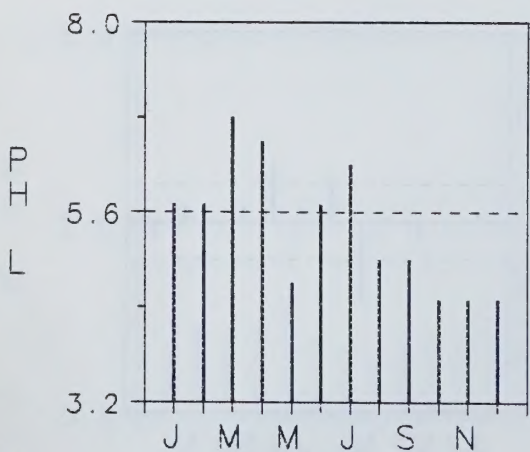
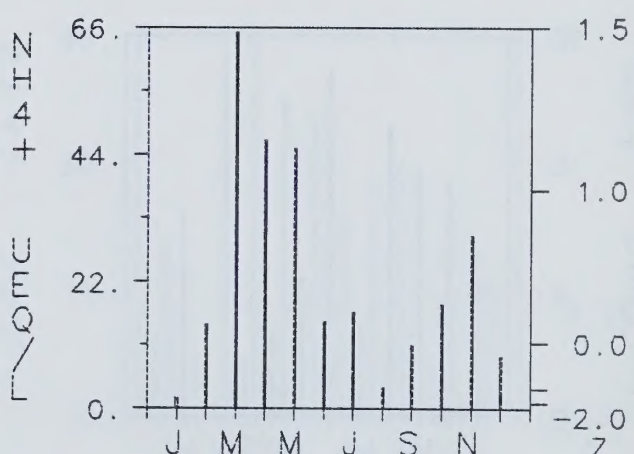
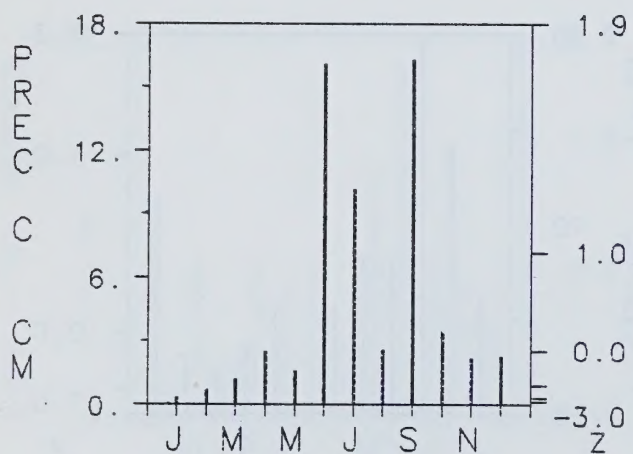
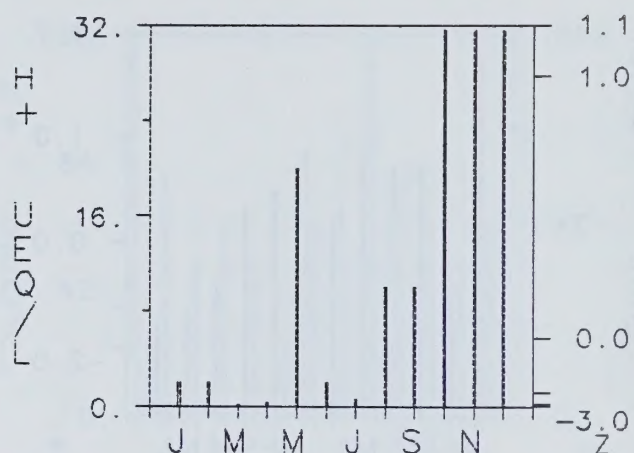
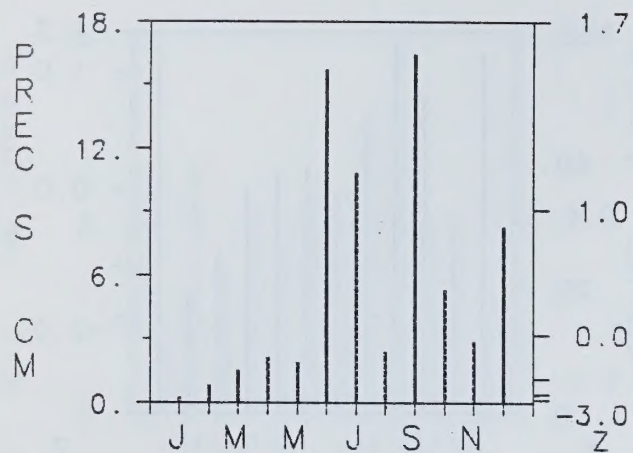


## DORSET

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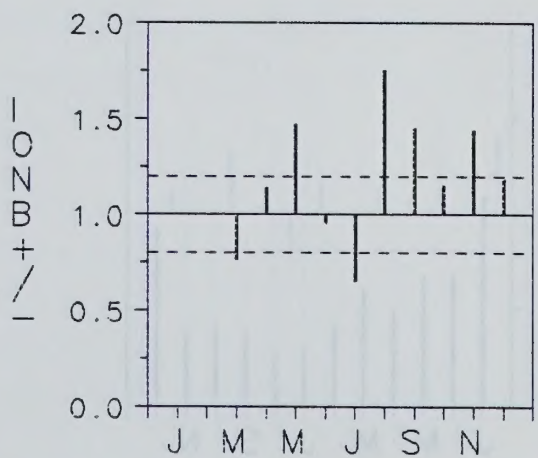
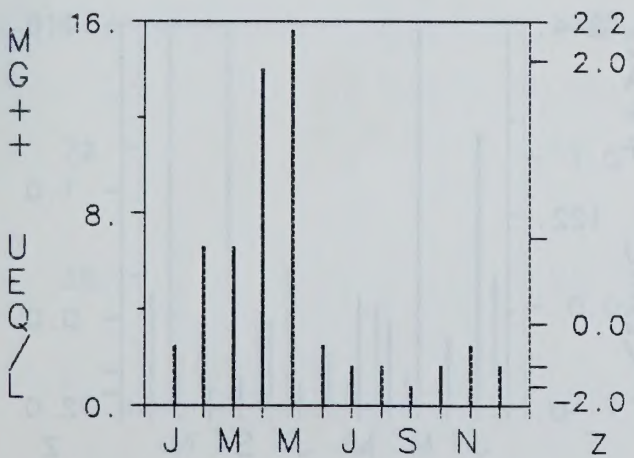
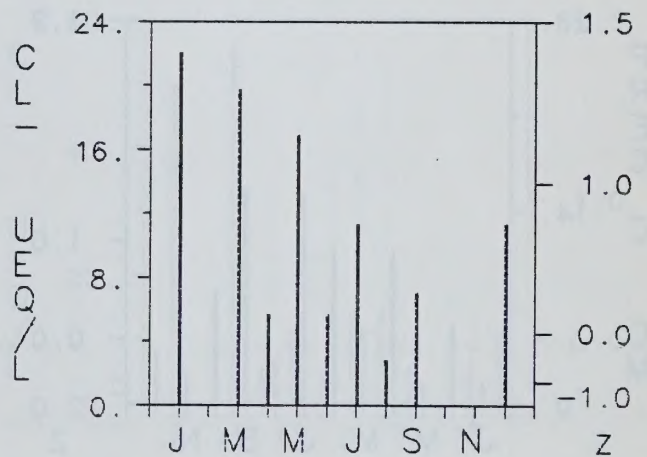
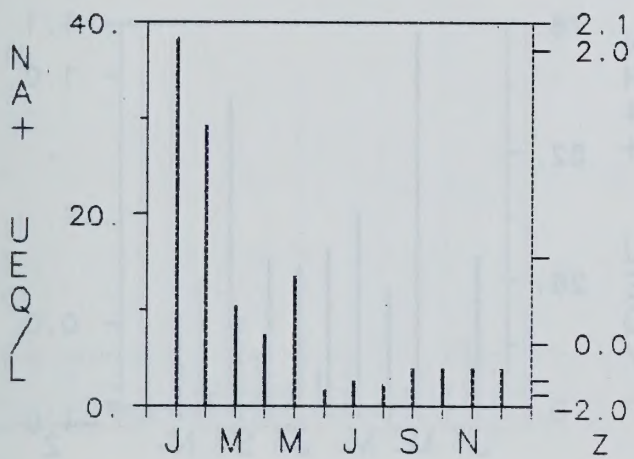
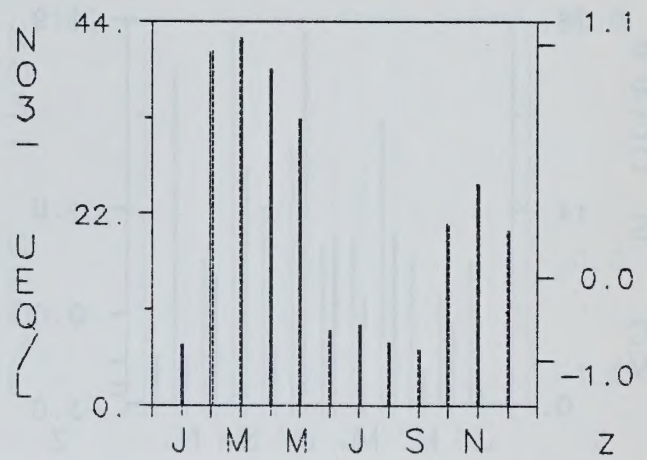
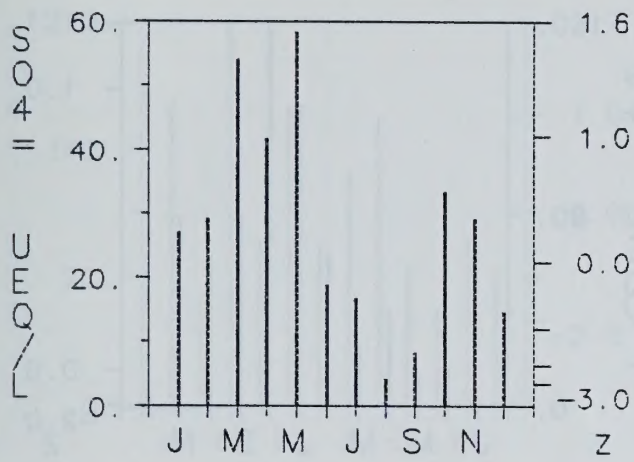






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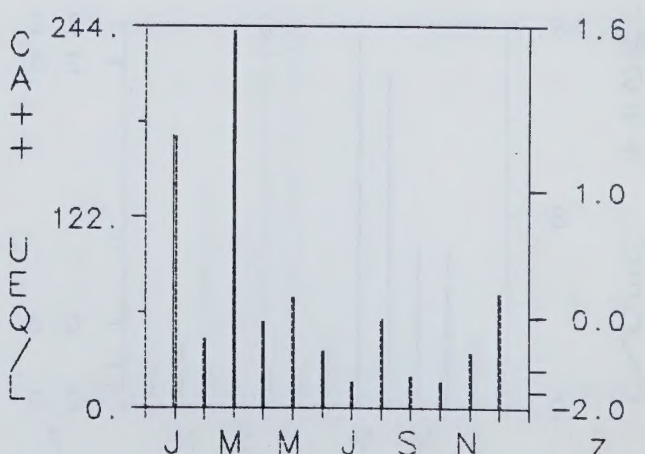
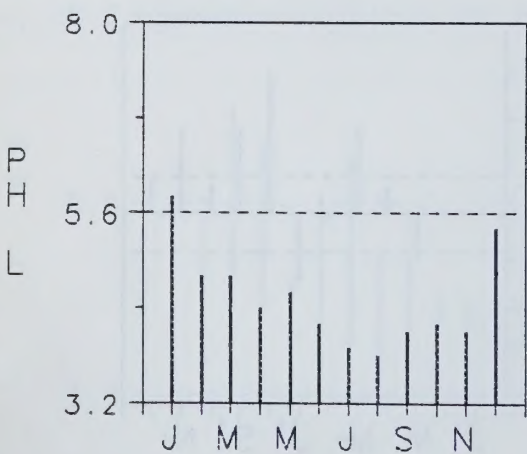
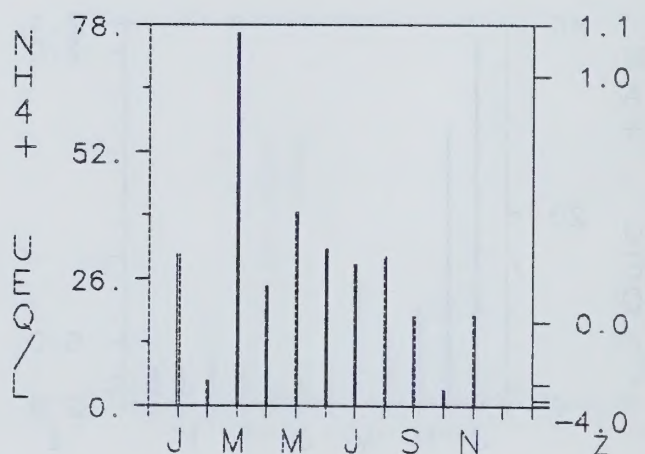
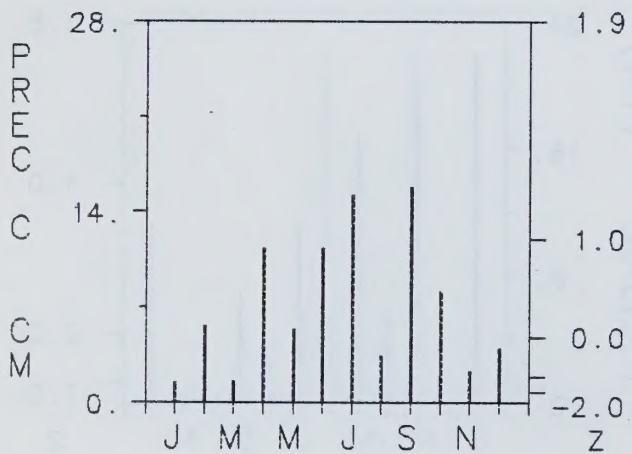
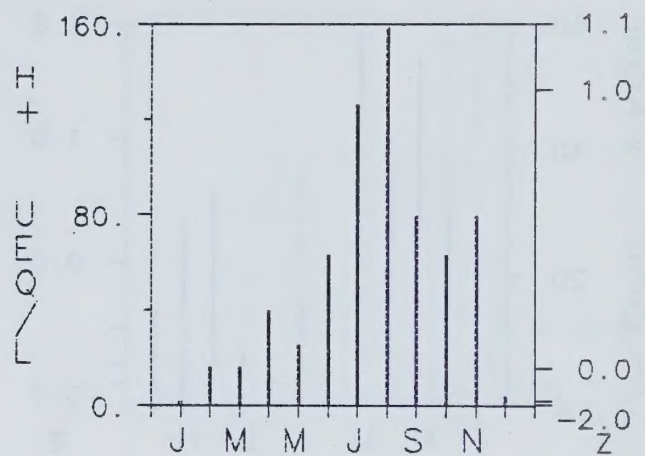
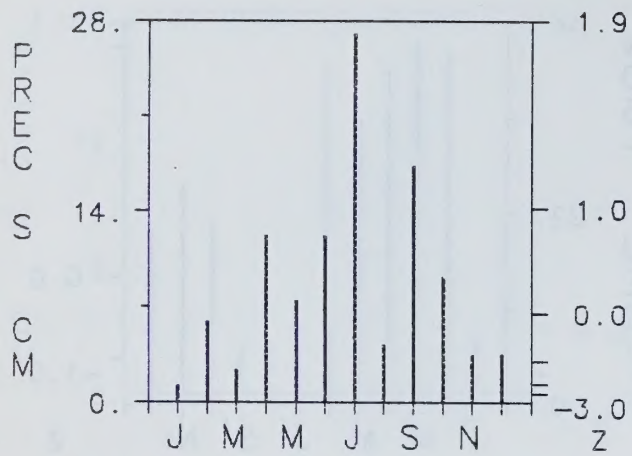
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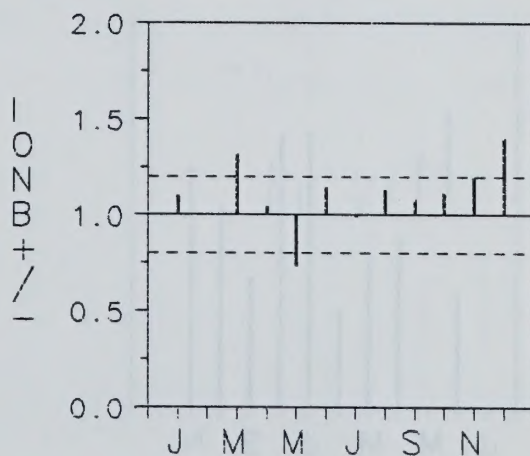
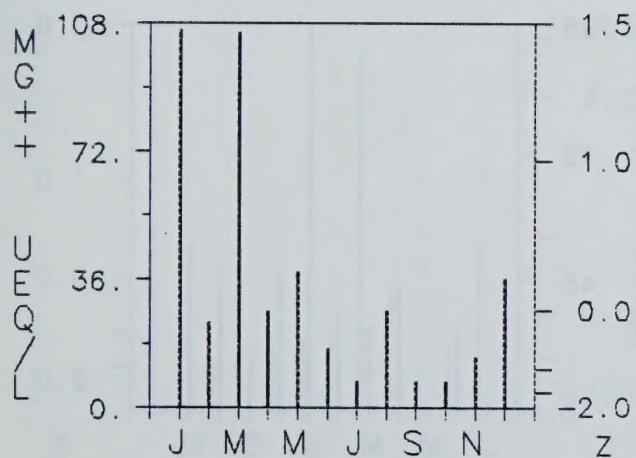
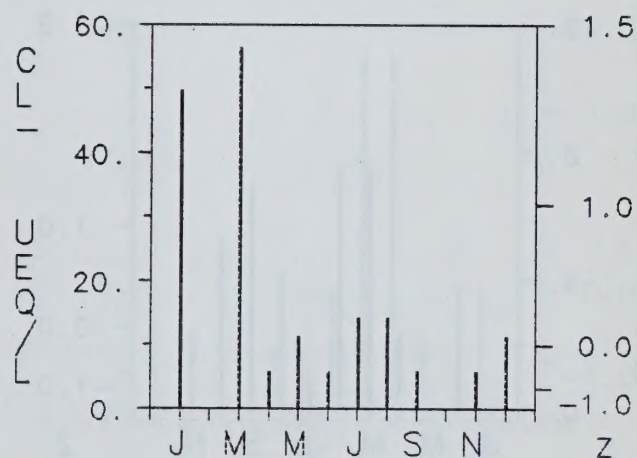
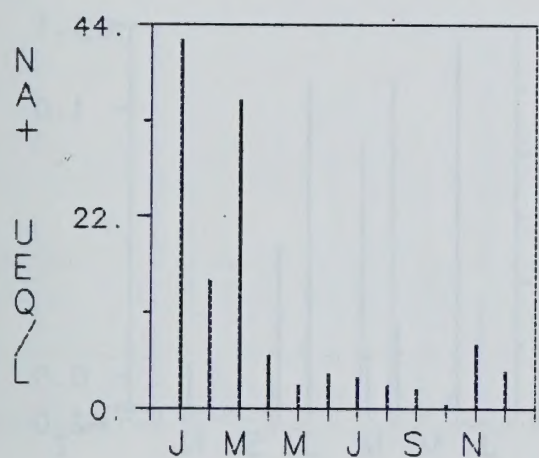
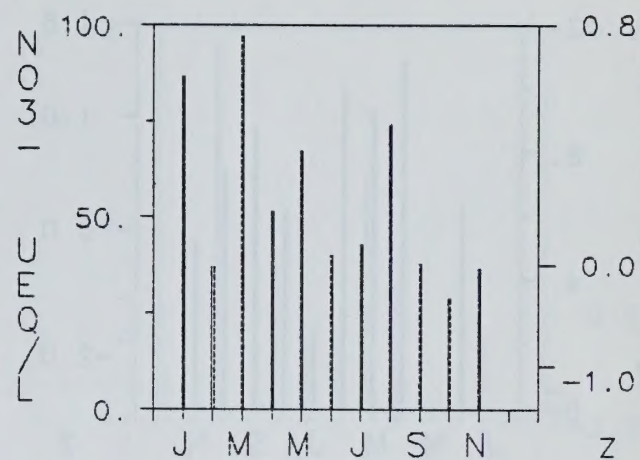
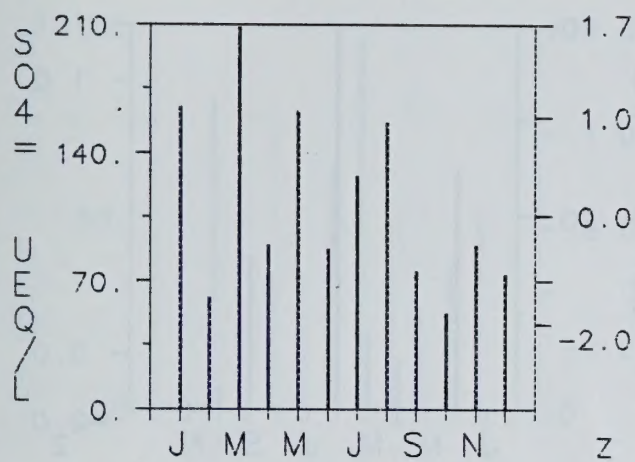
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## HARROW

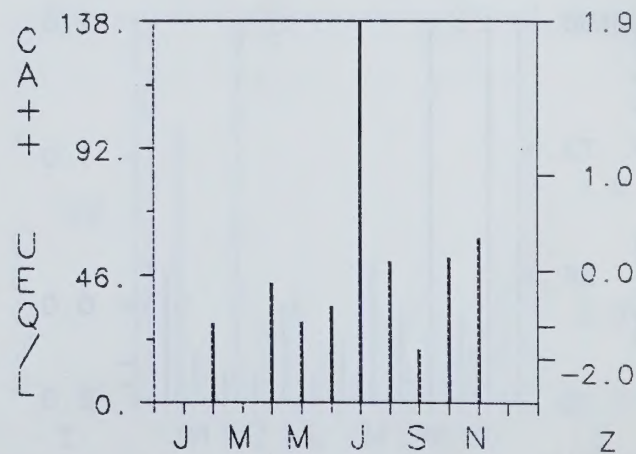
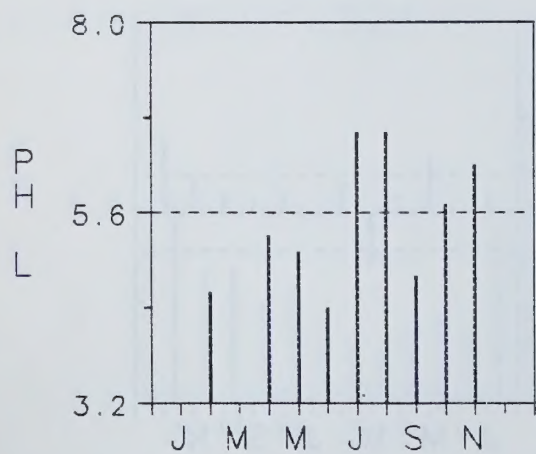
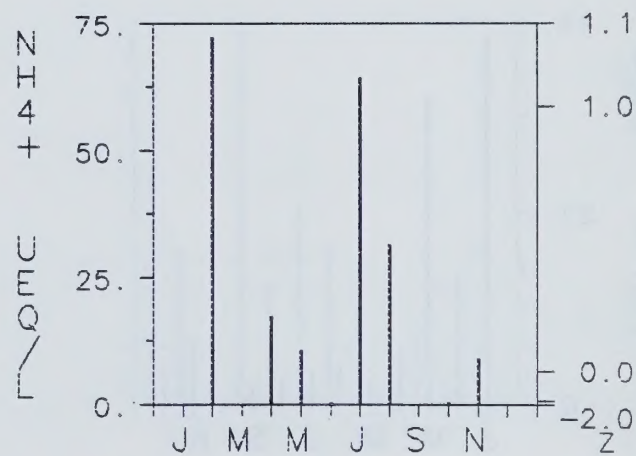
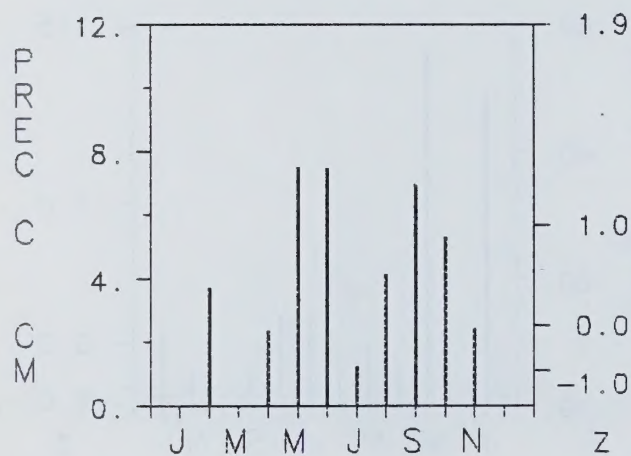
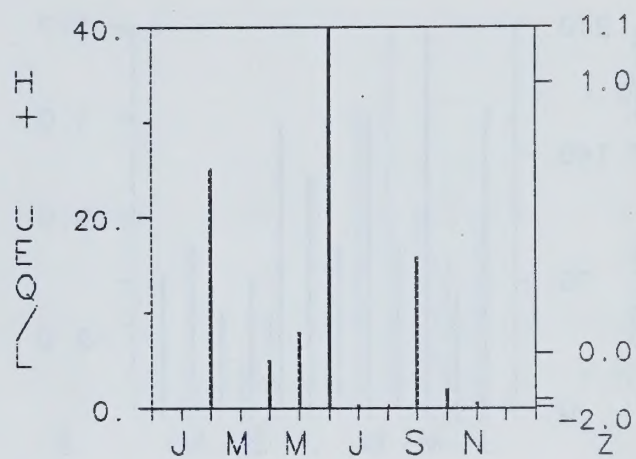
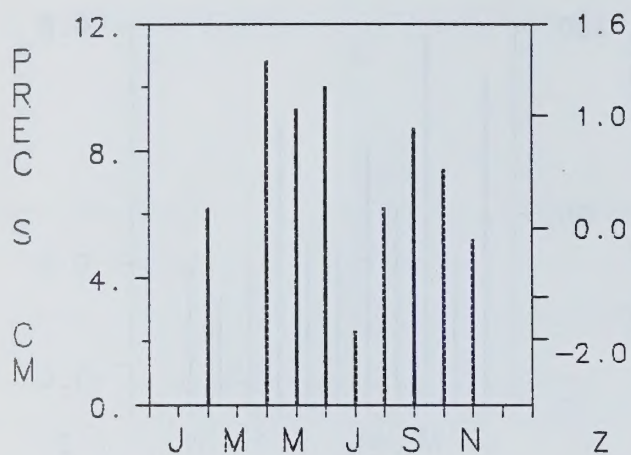
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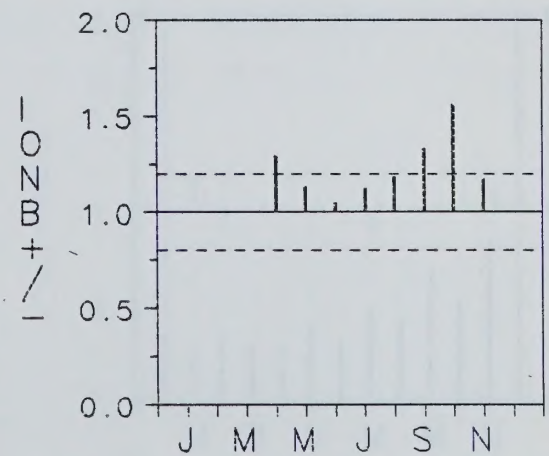
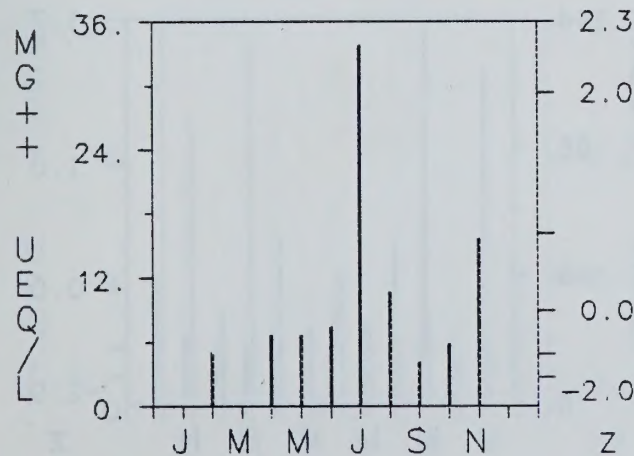
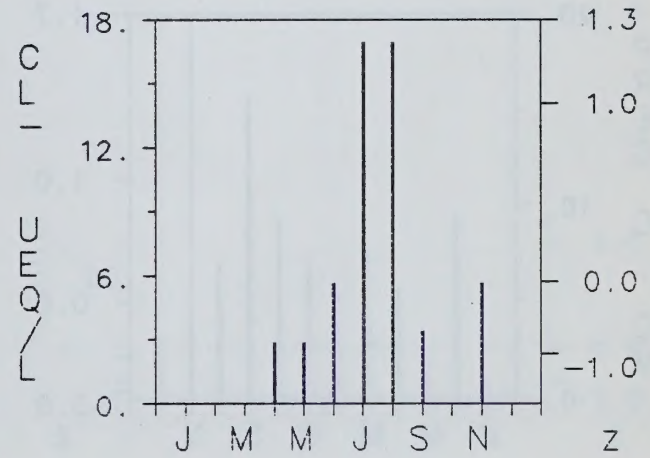
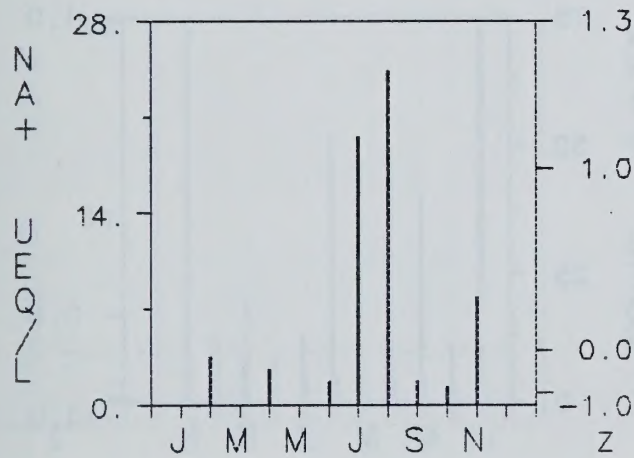
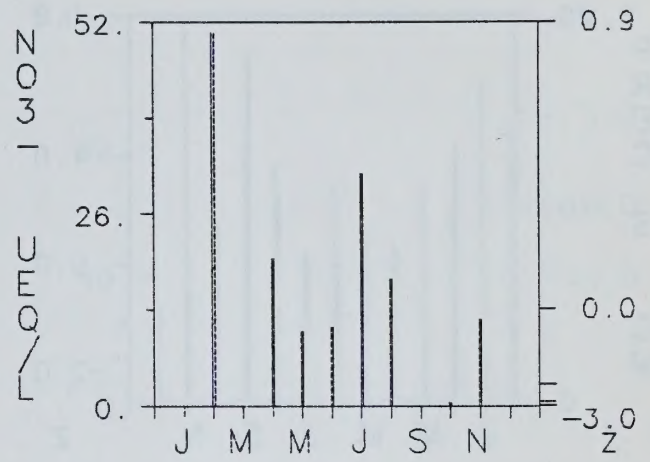
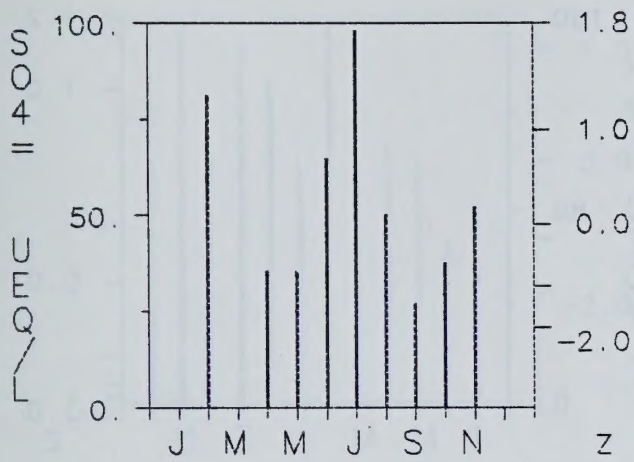
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## KAPUSKASING

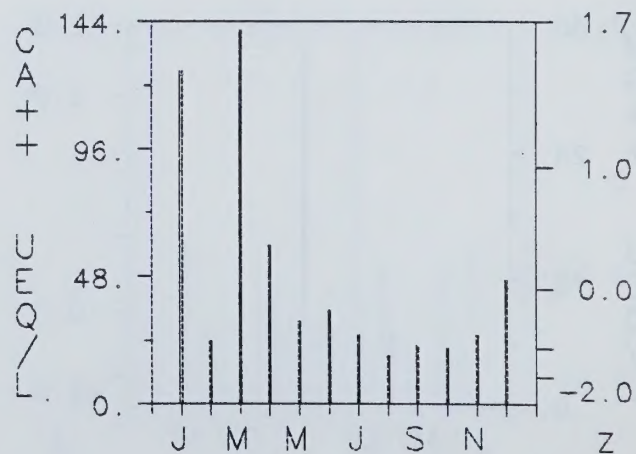
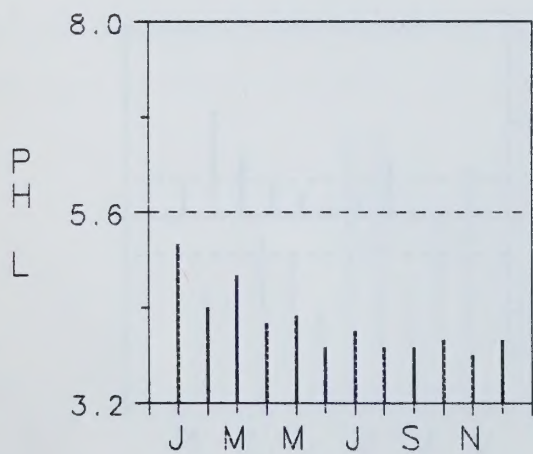
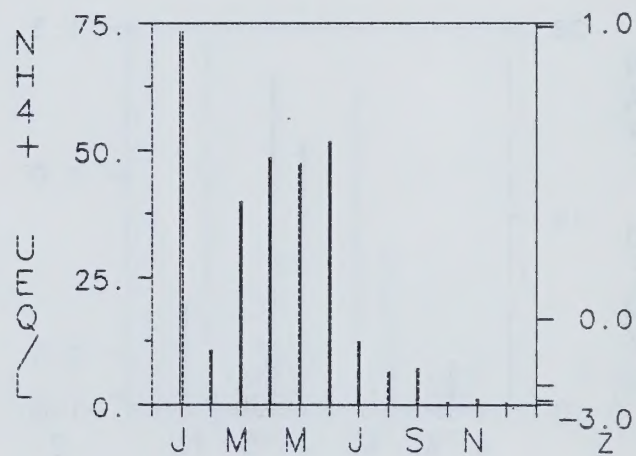
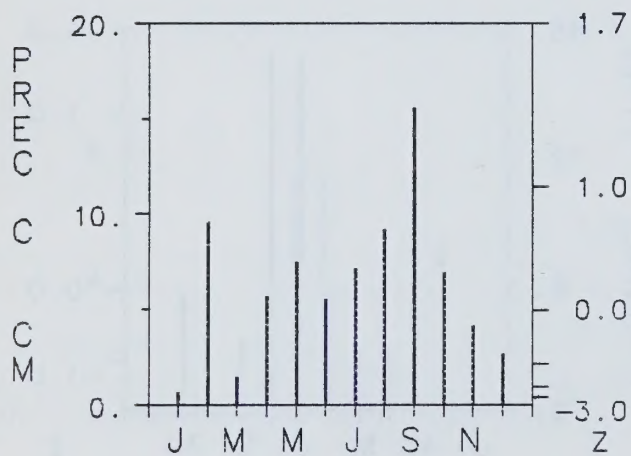
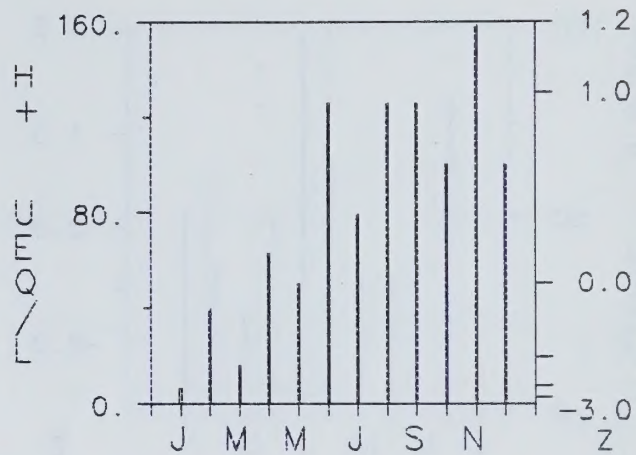
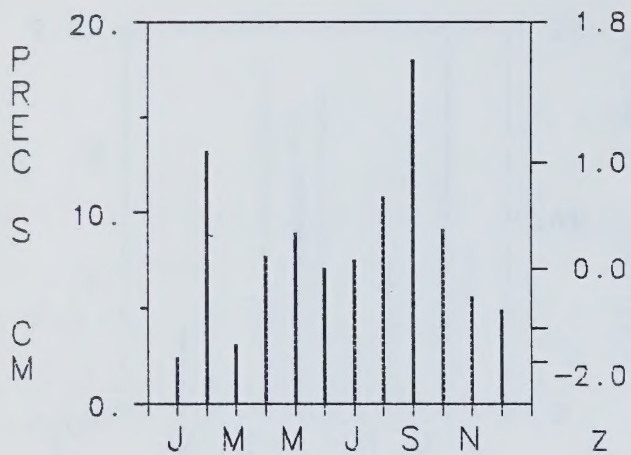
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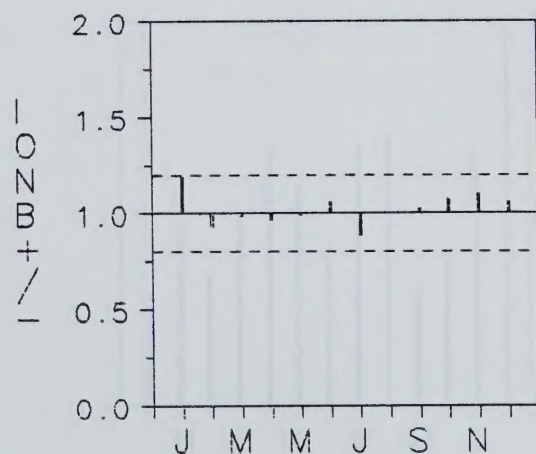
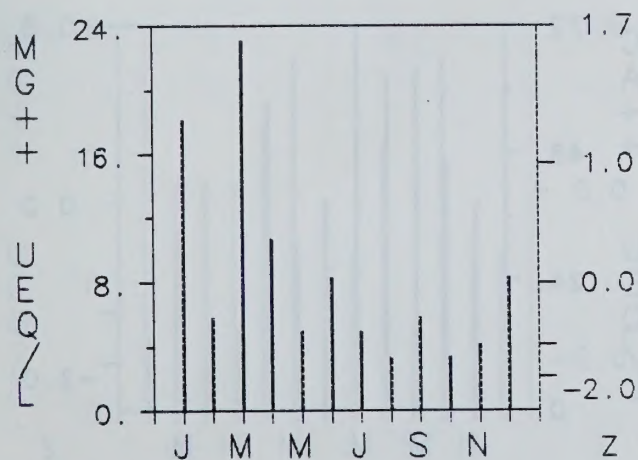
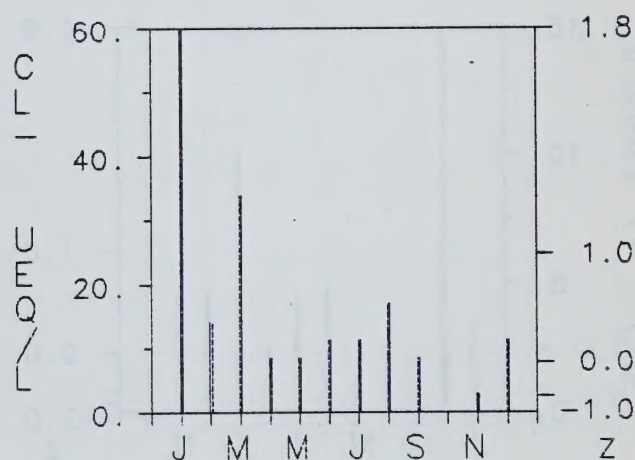
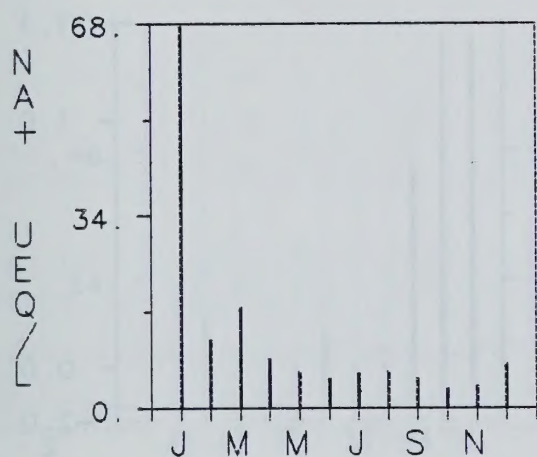
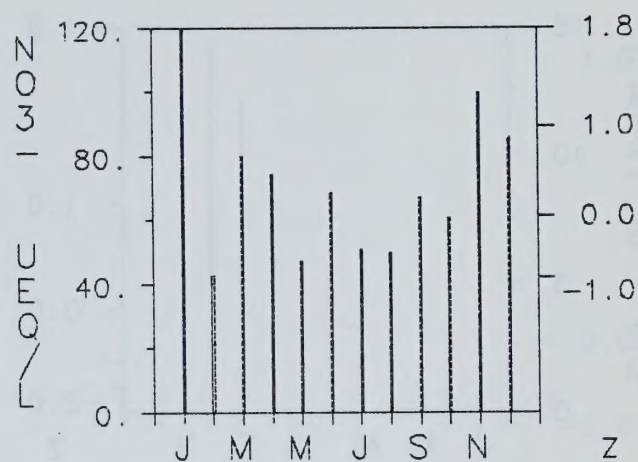
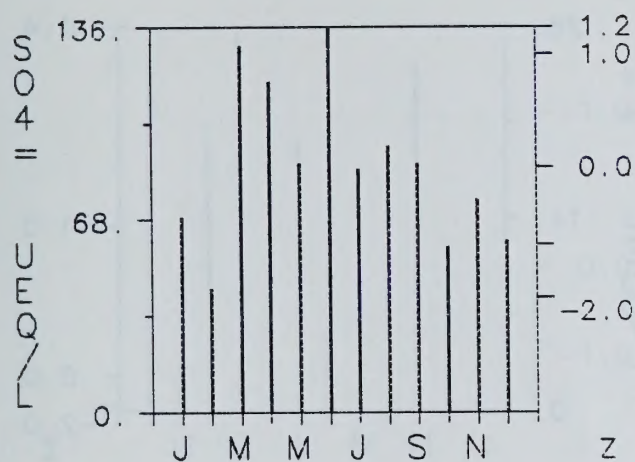
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## KINGSTON

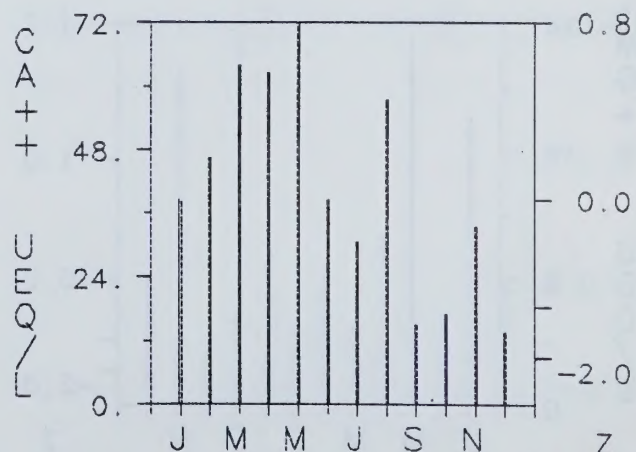
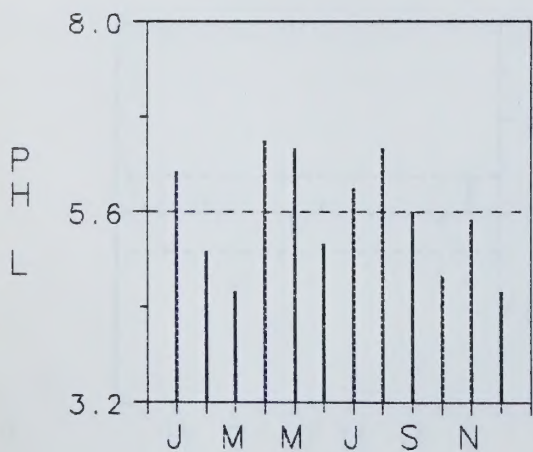
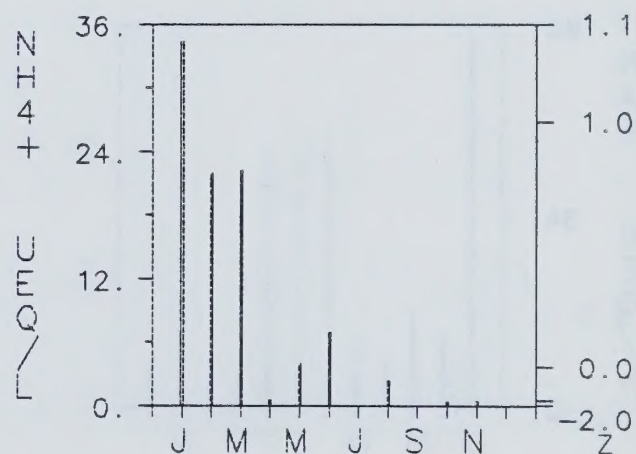
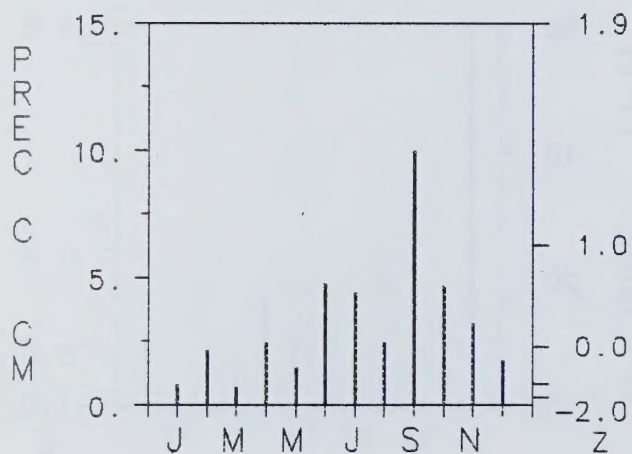
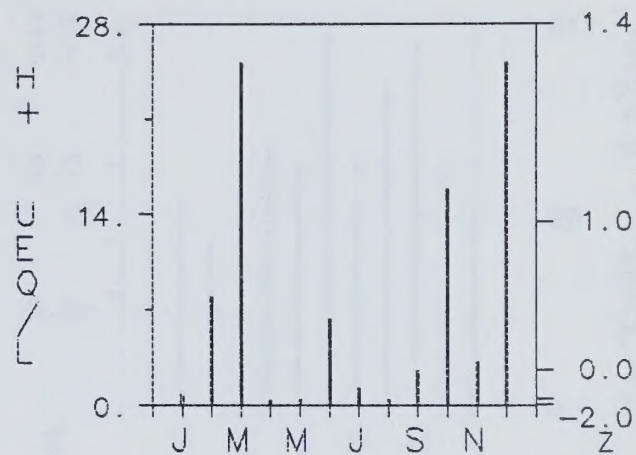
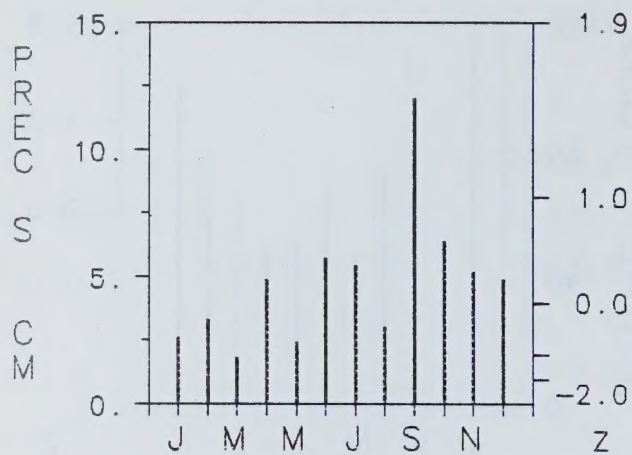
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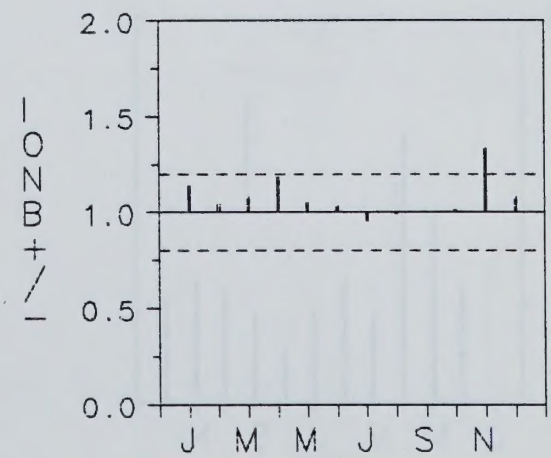
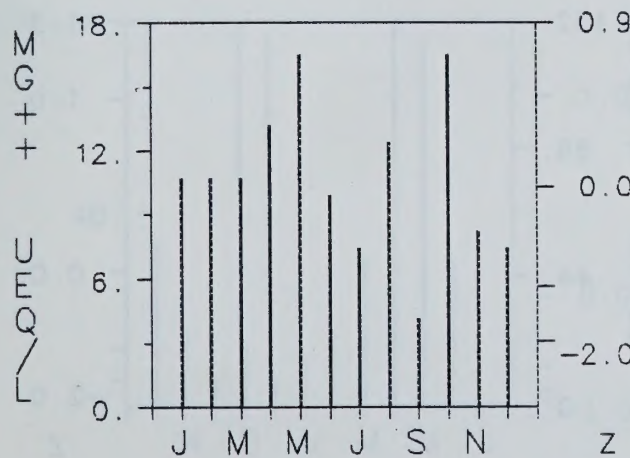
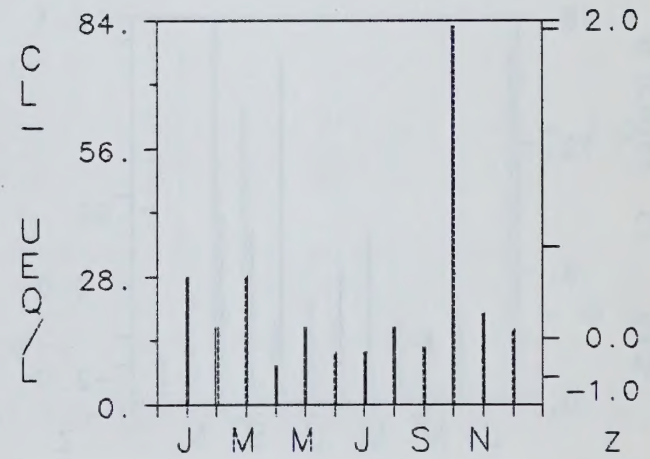
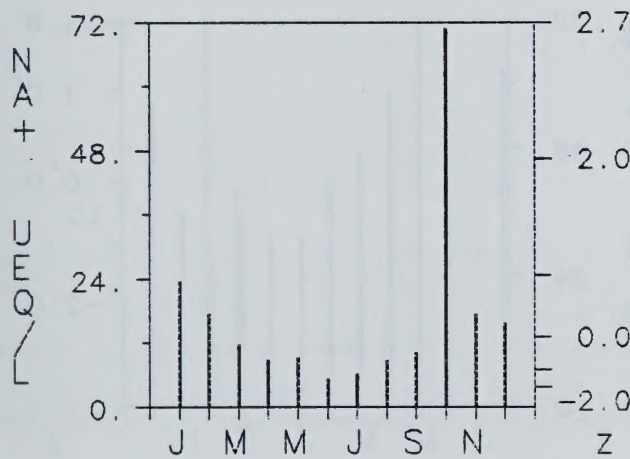
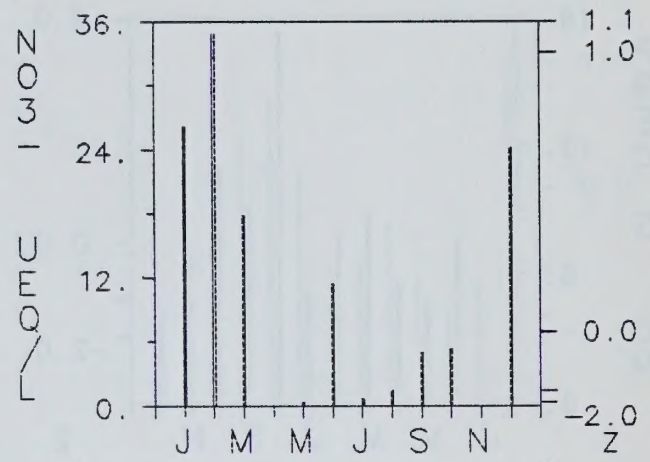
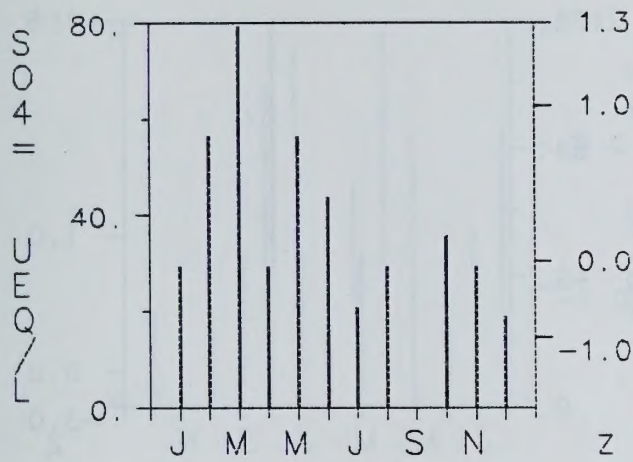
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## MOOSONEE

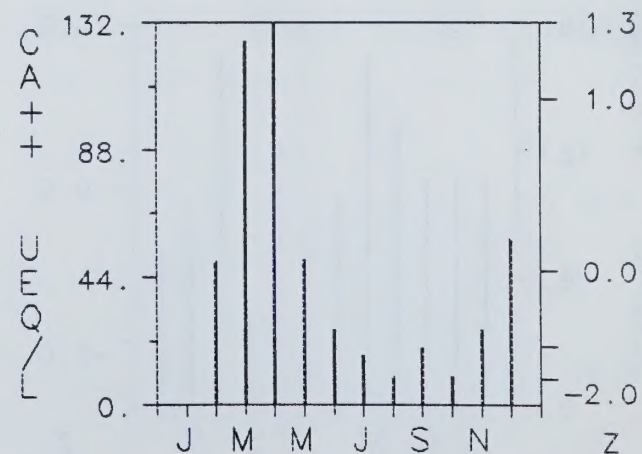
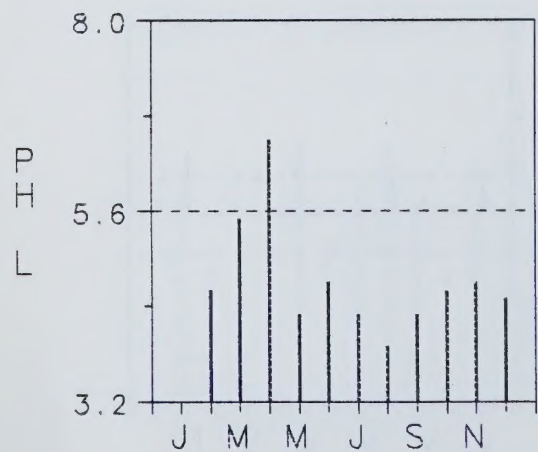
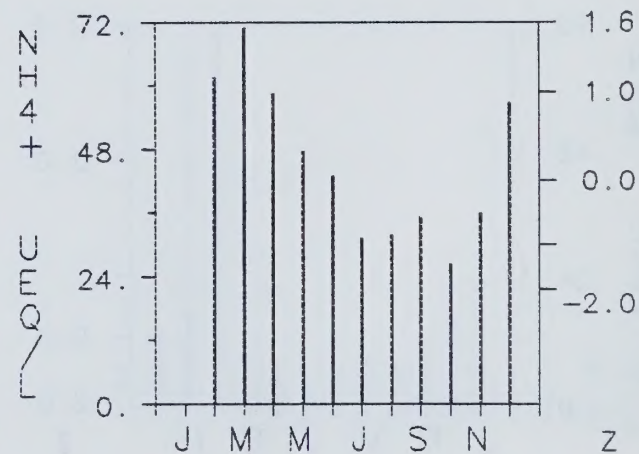
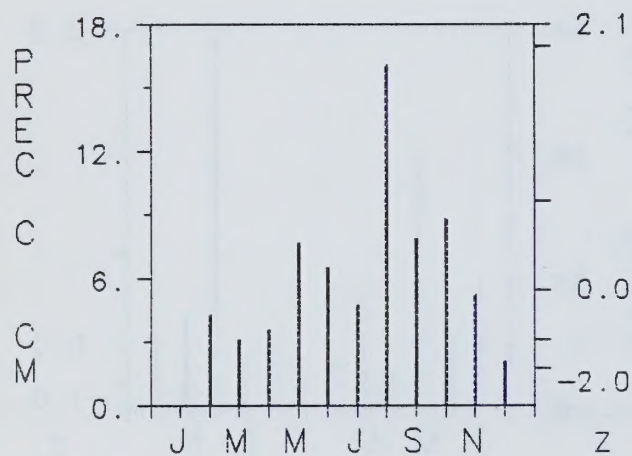
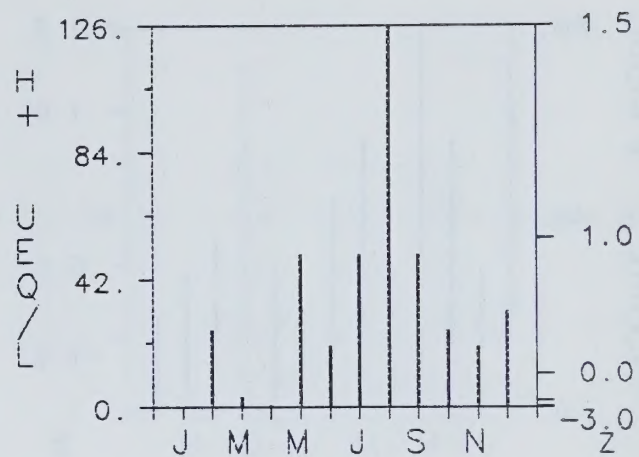
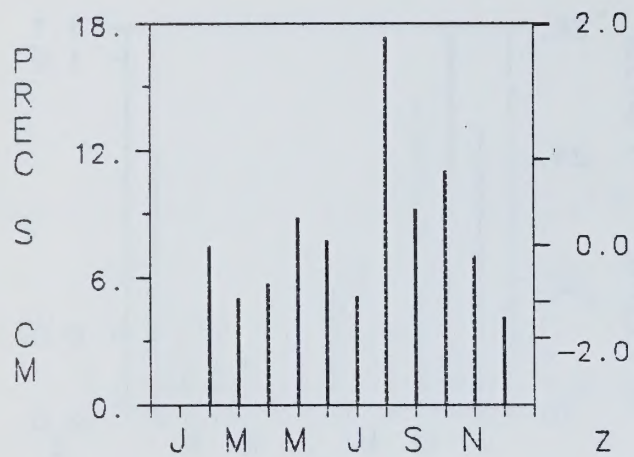
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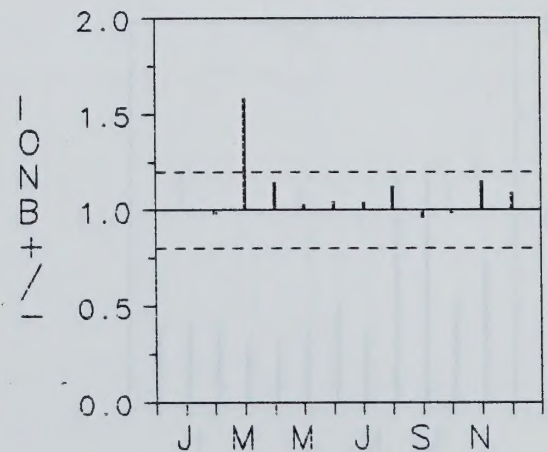
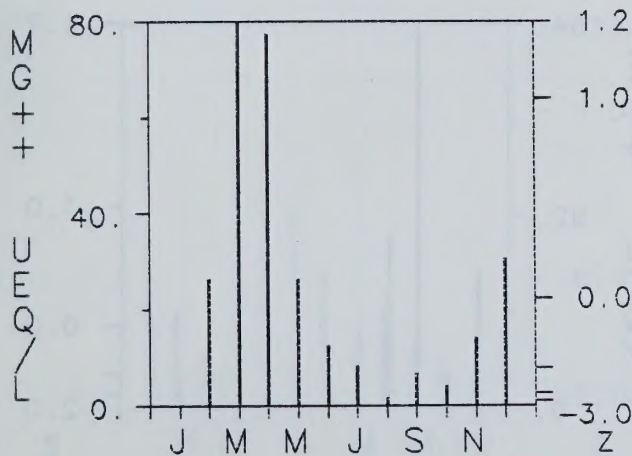
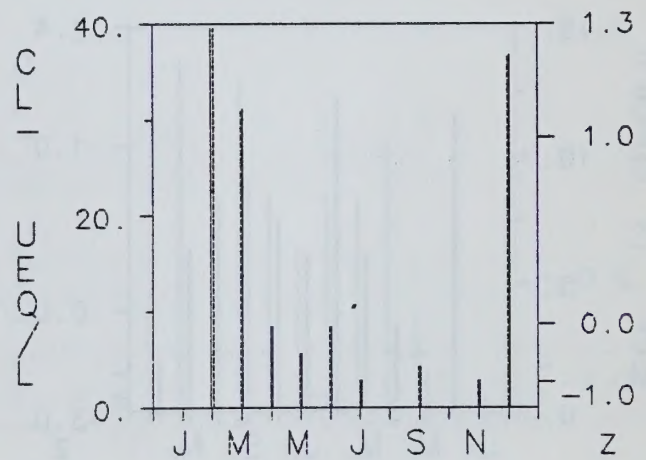
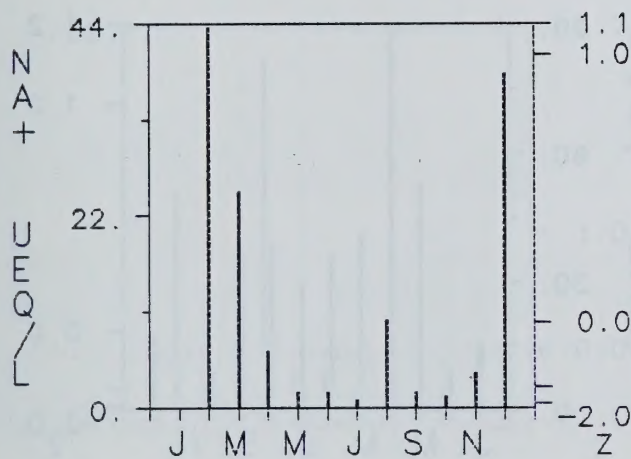
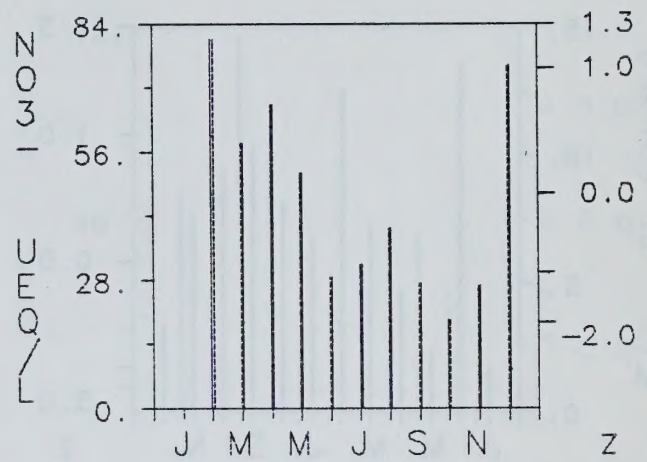
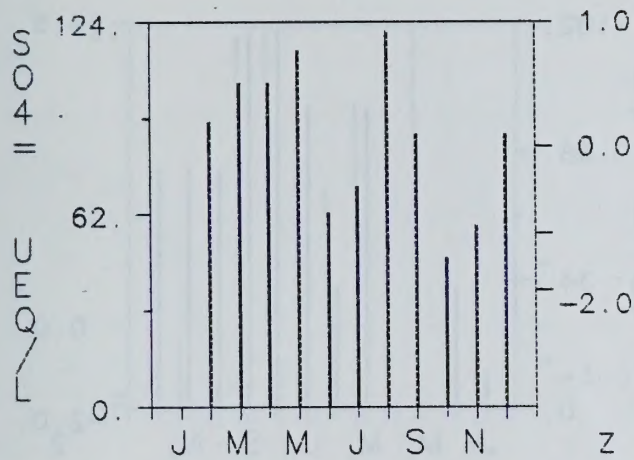
## MOUNT FOREST

1981



## MOUNT FOREST

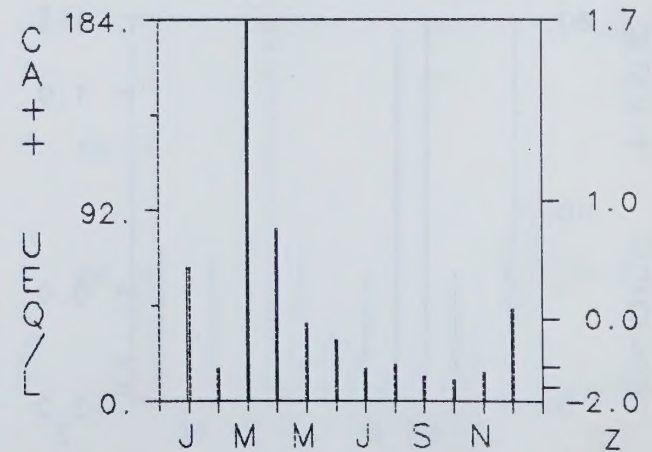
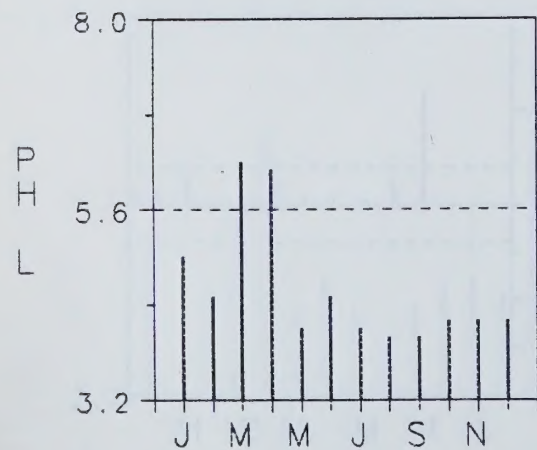
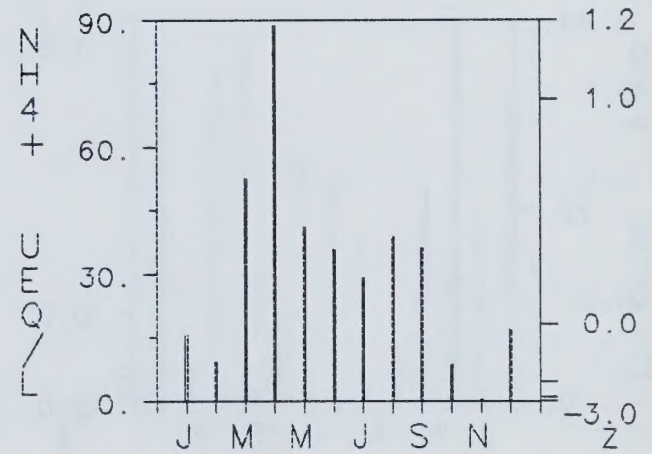
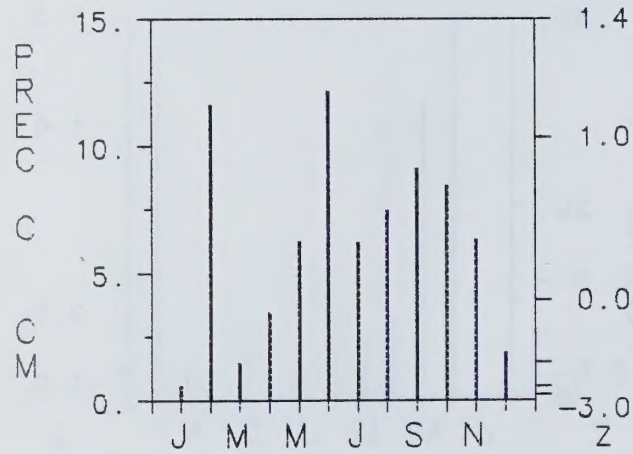
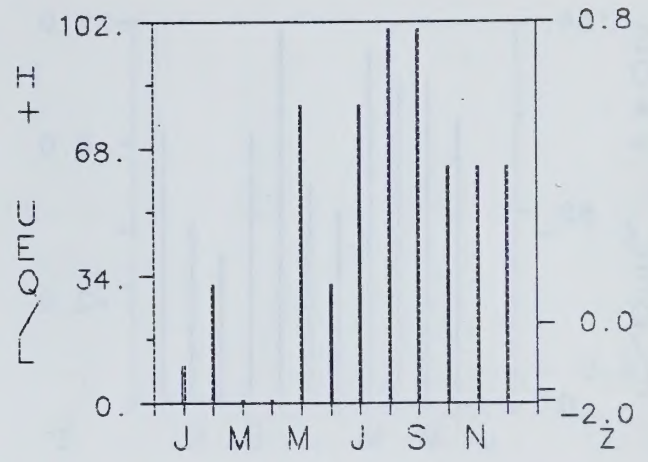
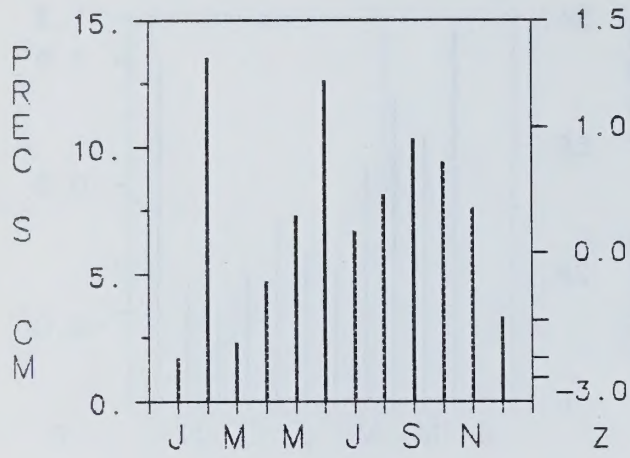
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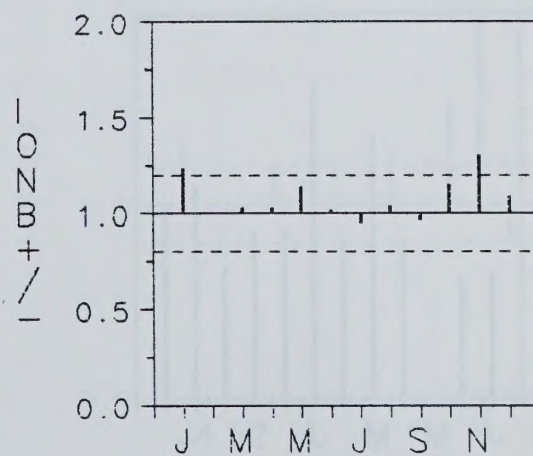
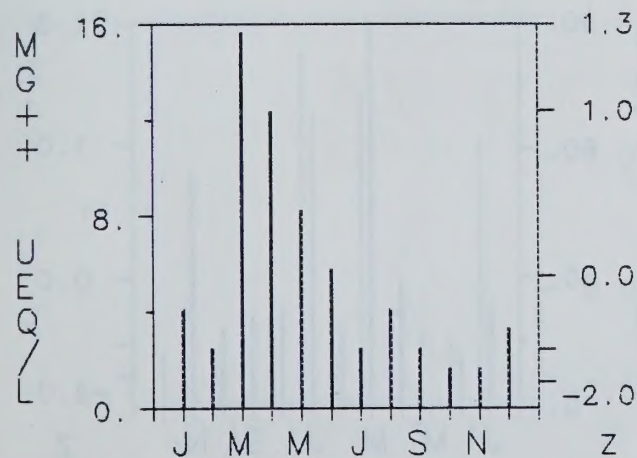
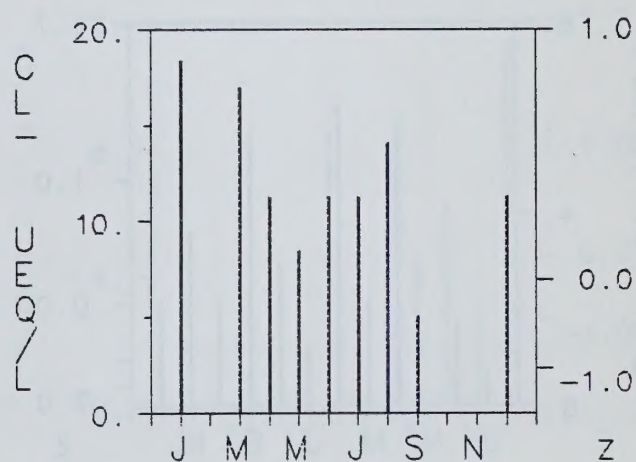
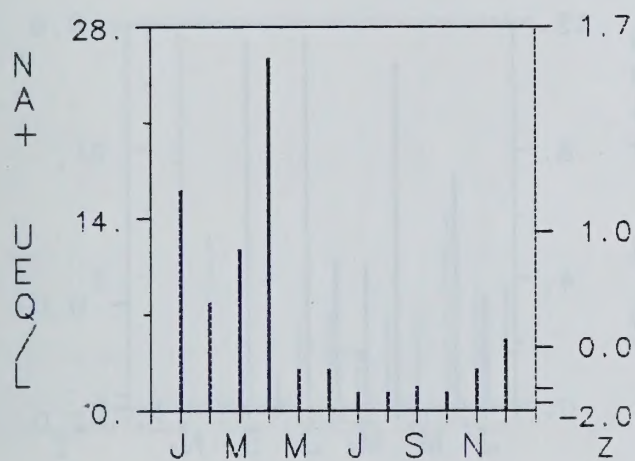
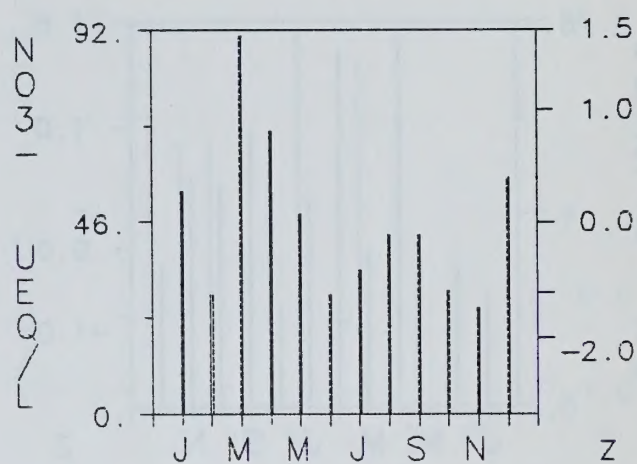
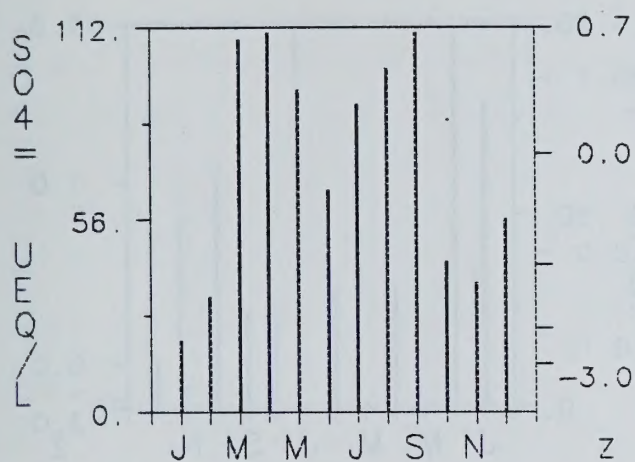
## PETERBOROUGH

1981



## PETERBOROUGH

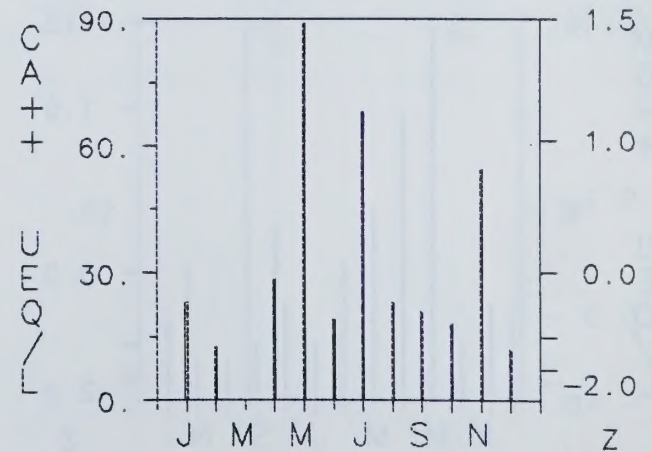
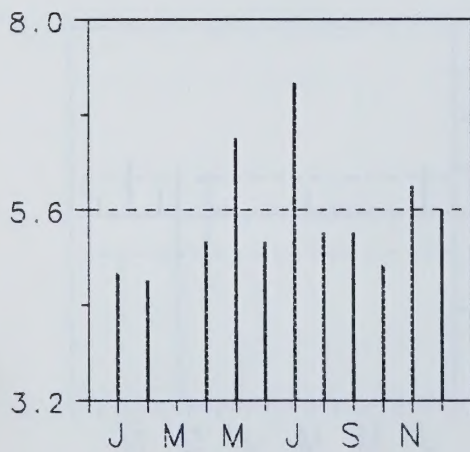
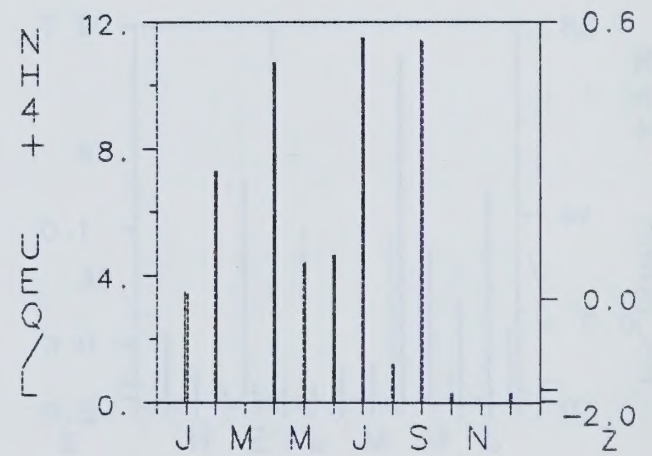
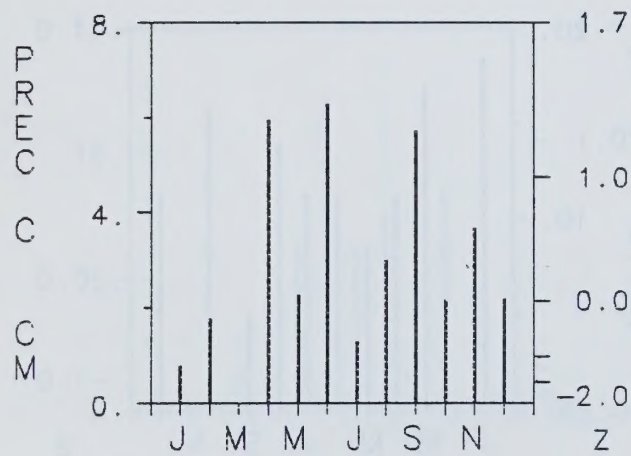
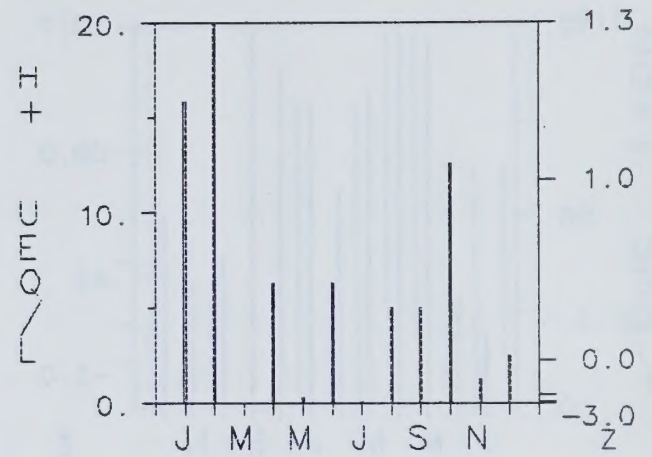
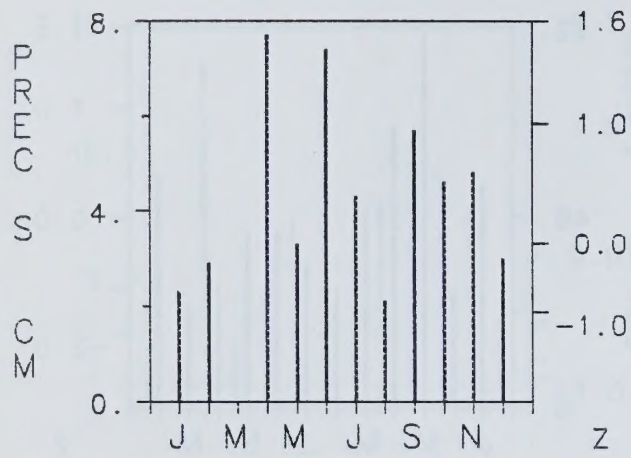
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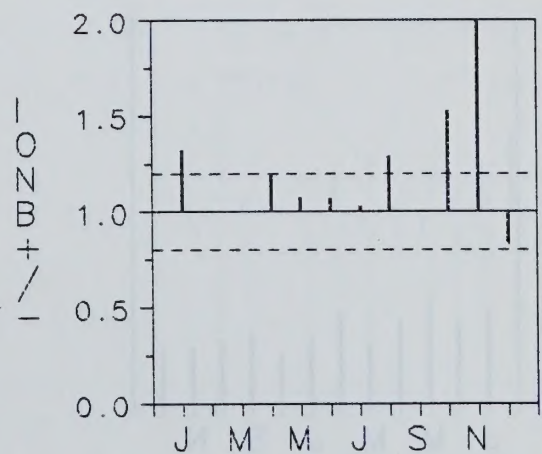
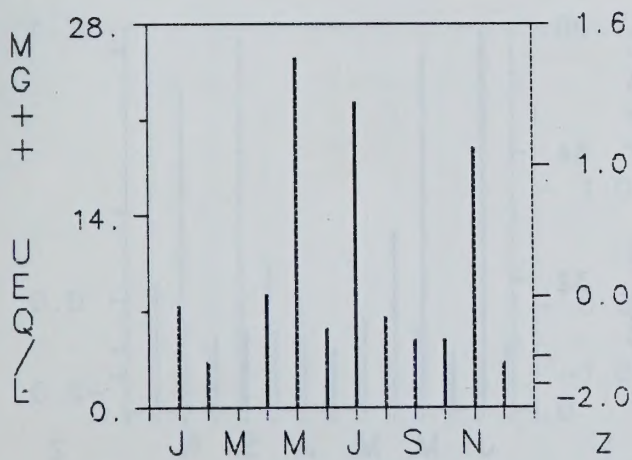
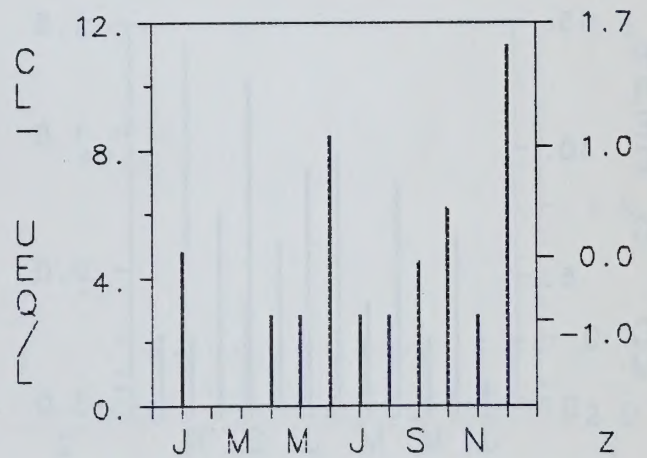
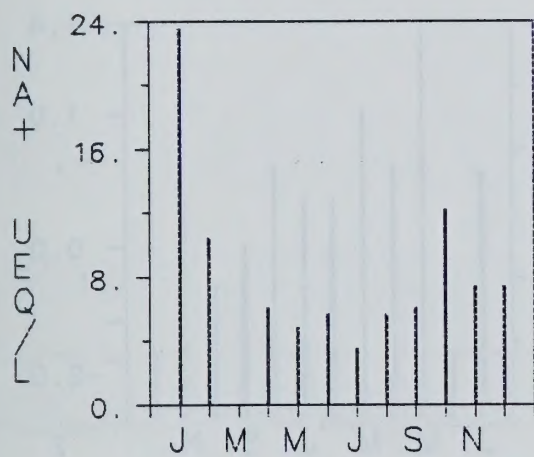
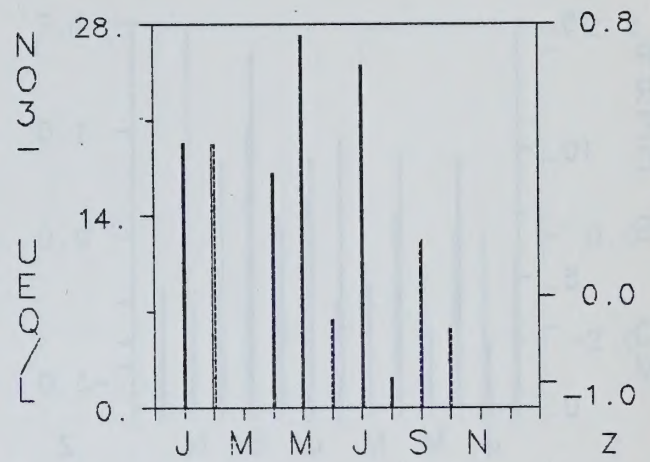
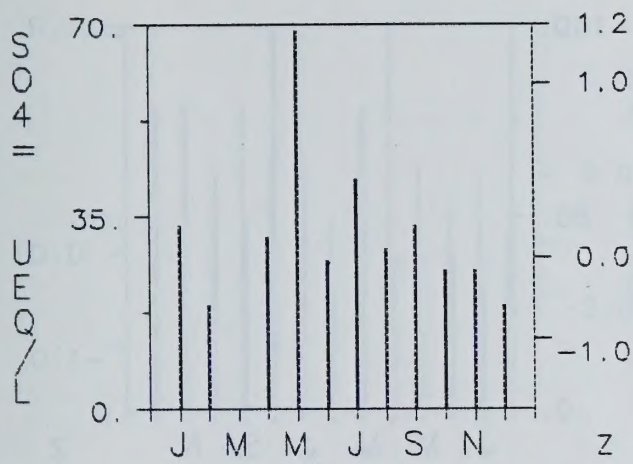
## PICKLE LAKE

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## PICKLE LAKE

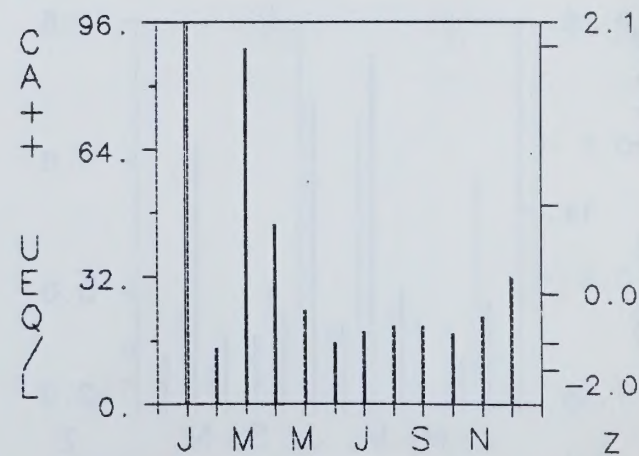
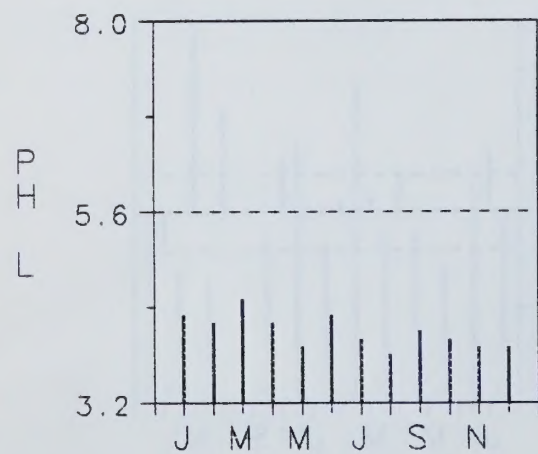
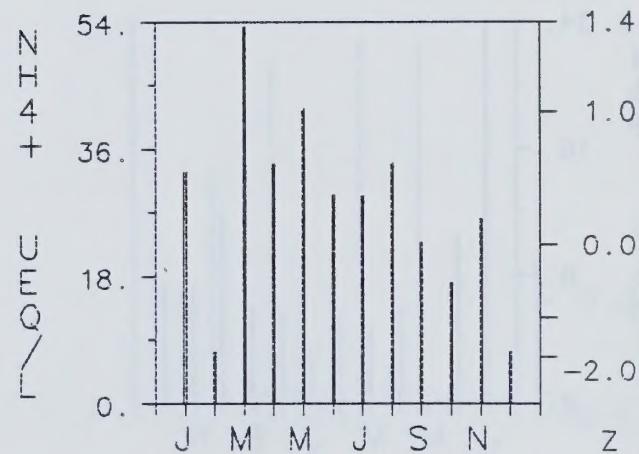
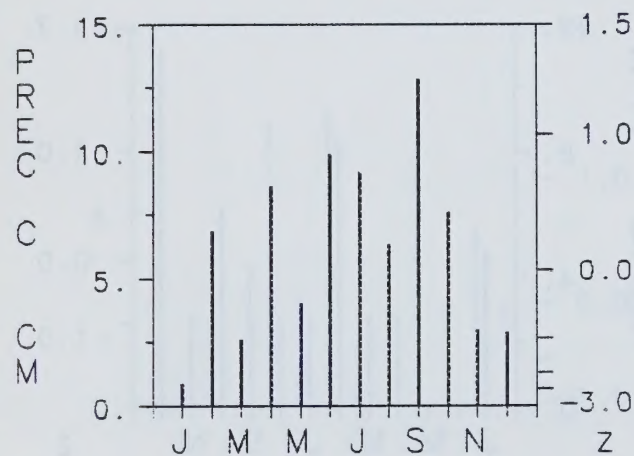
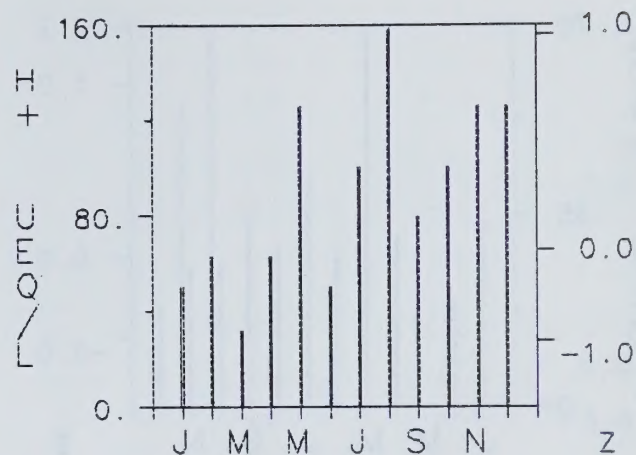
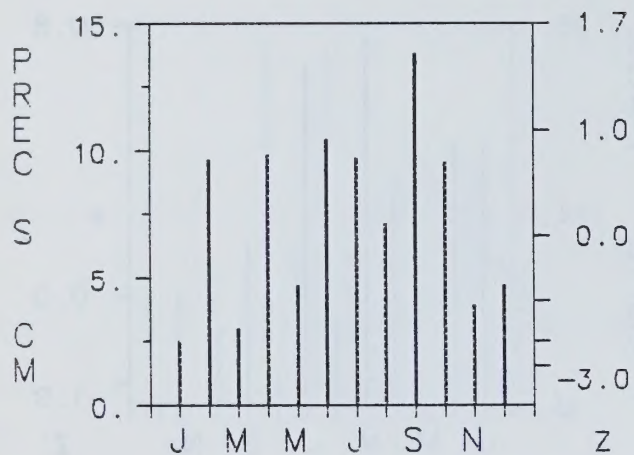
1981





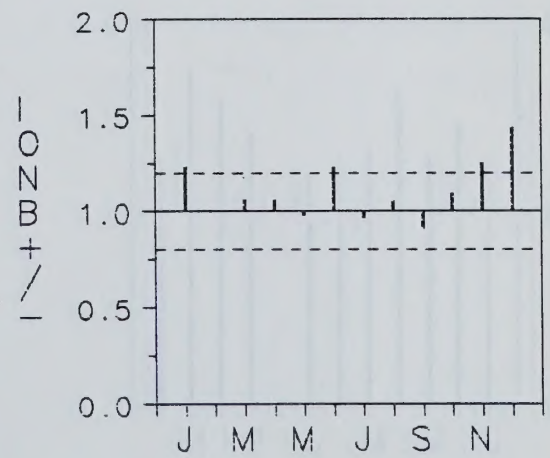
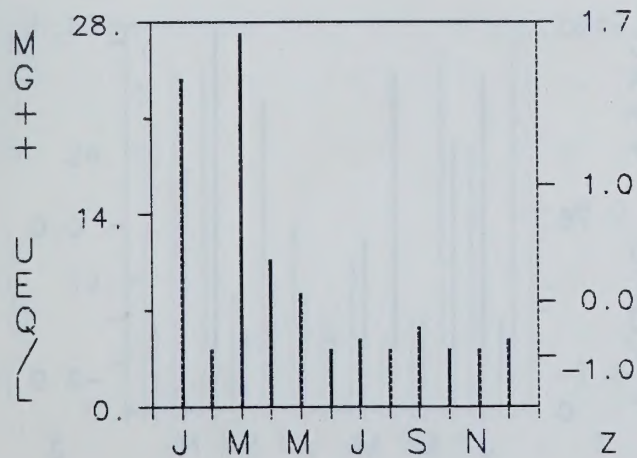
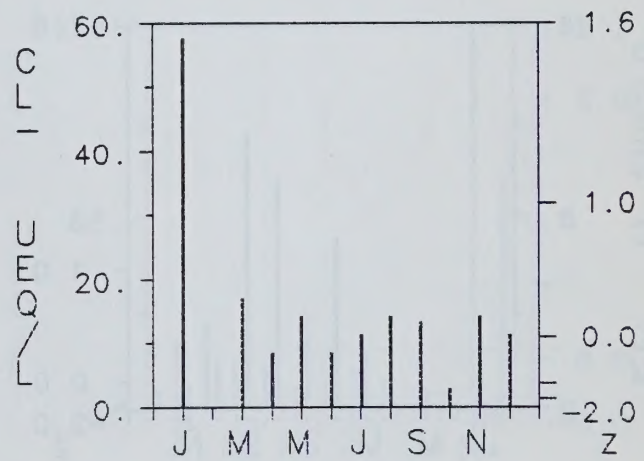
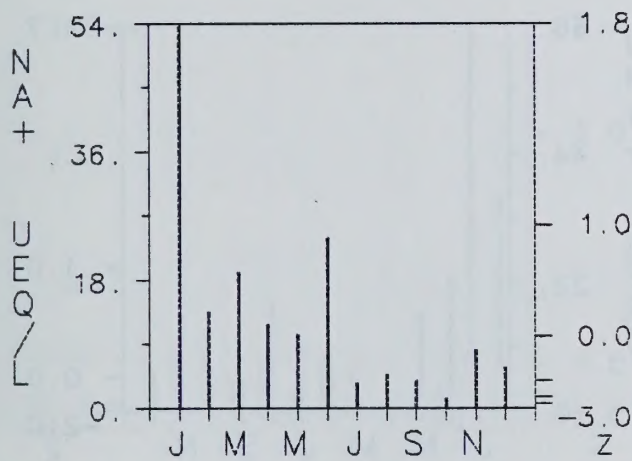
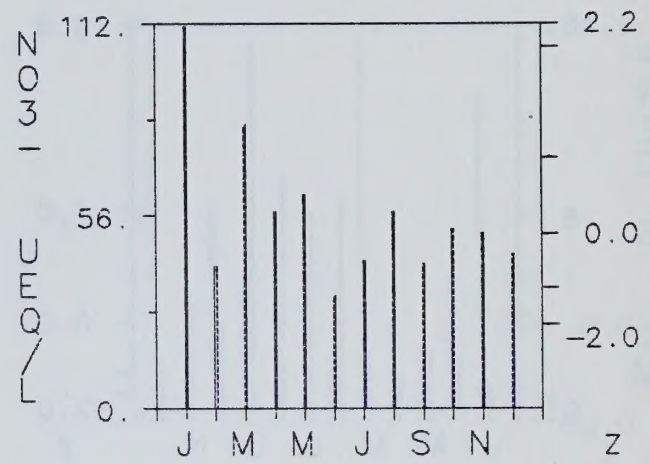
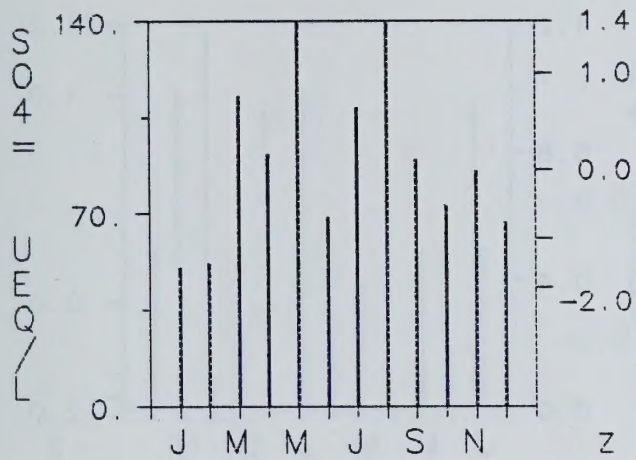
## SIMCOE

1981



## SIMCOE

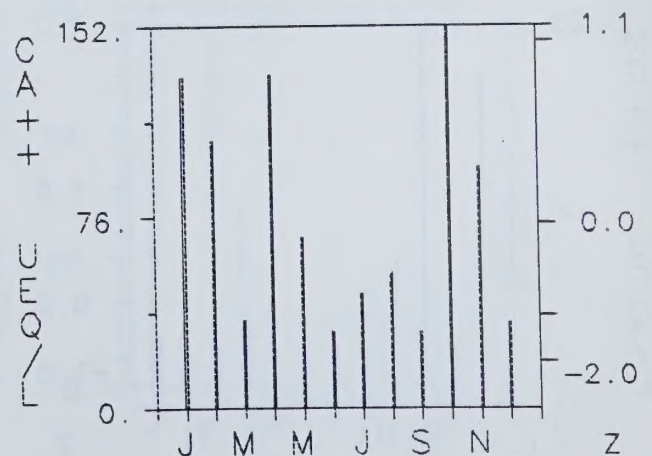
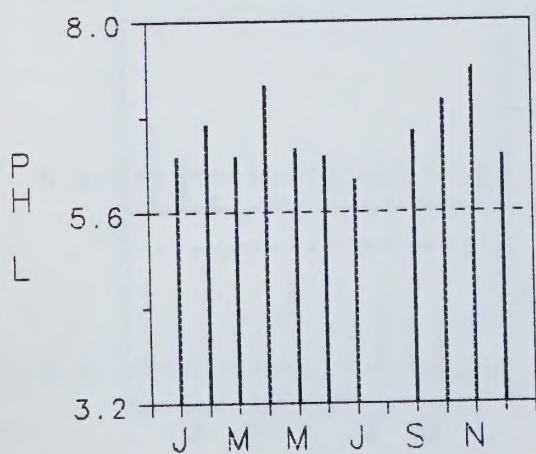
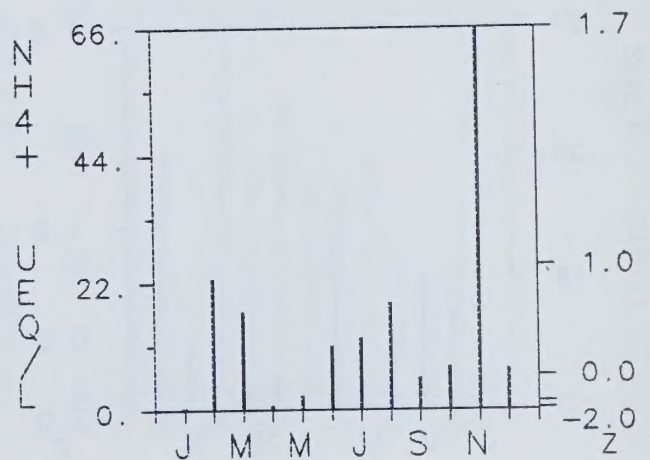
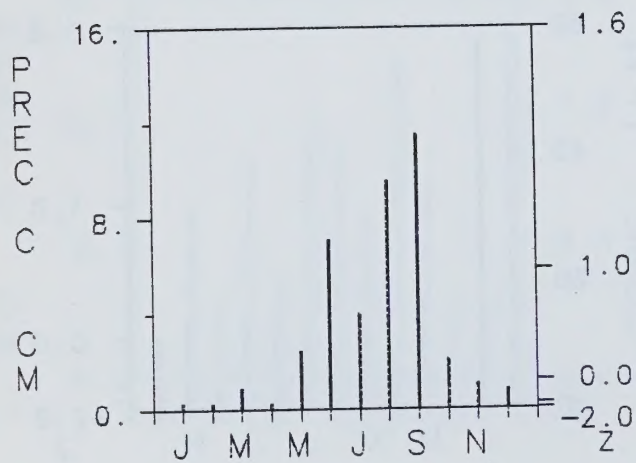
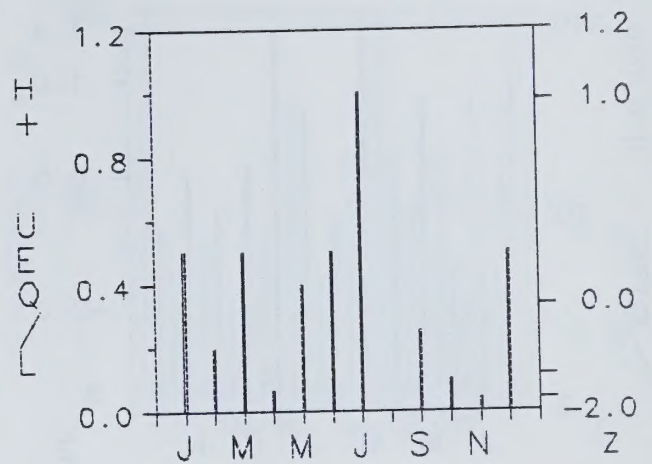
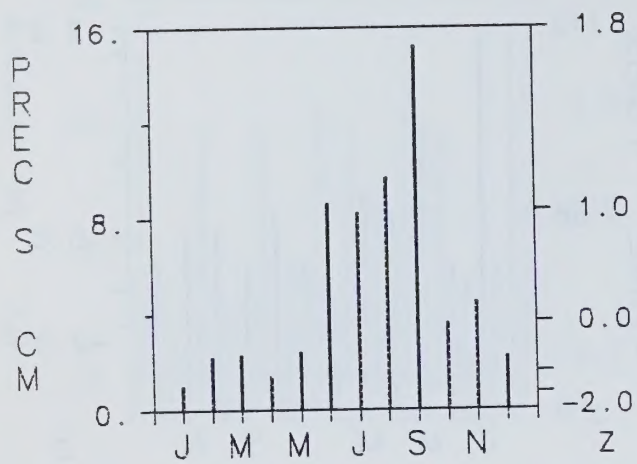
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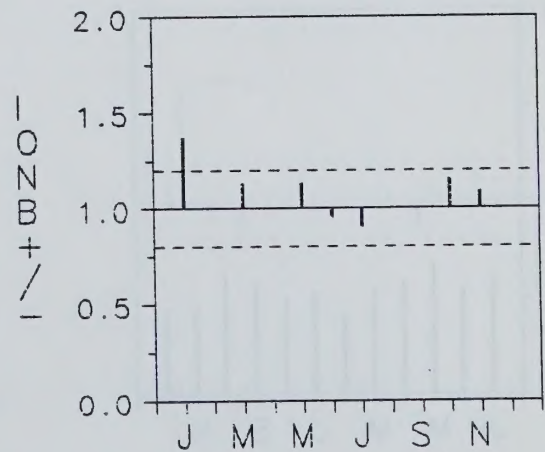
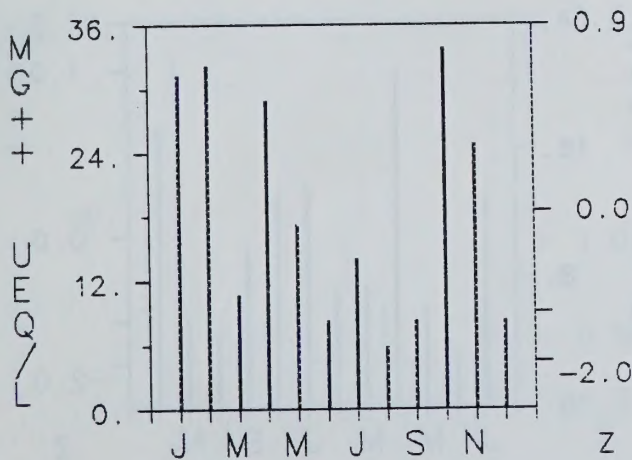
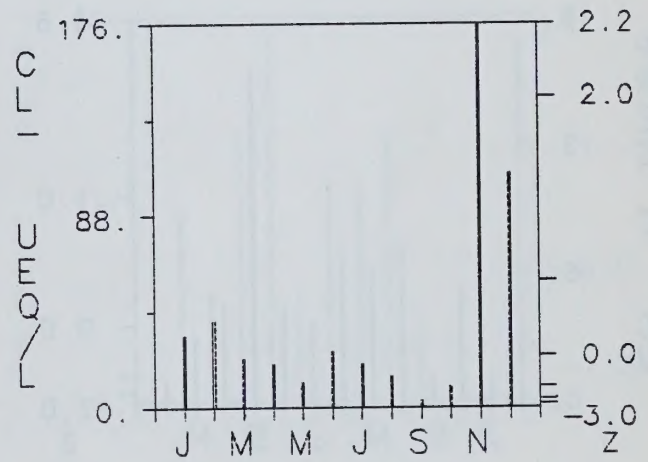
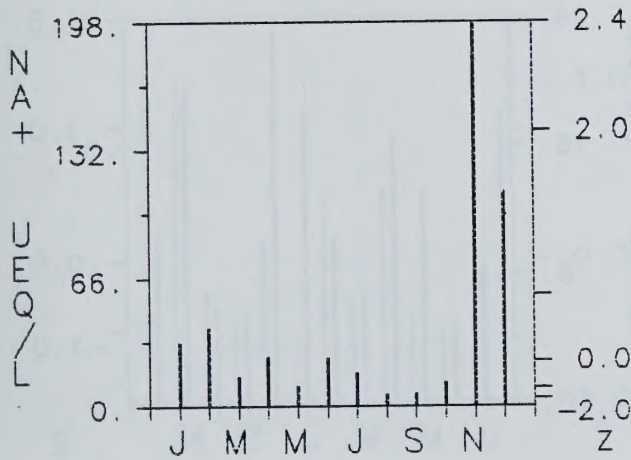
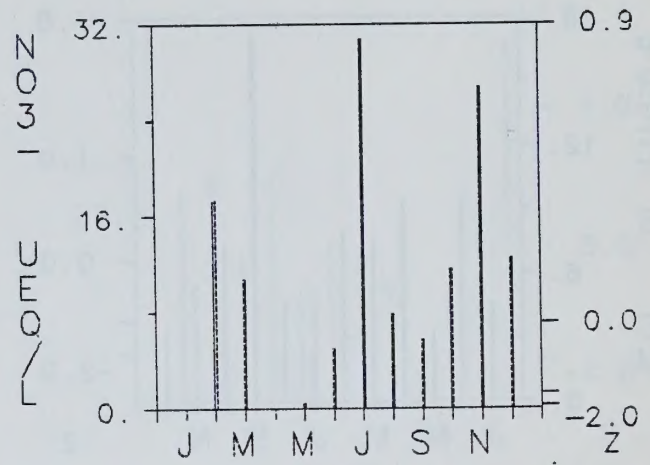
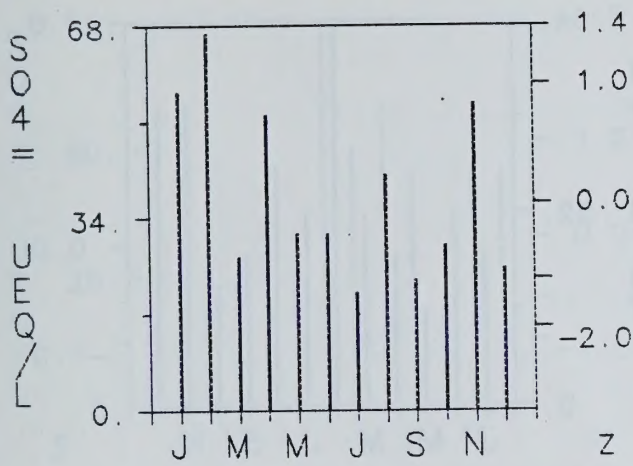
## TROUT LAKE

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## TROUT LAKE

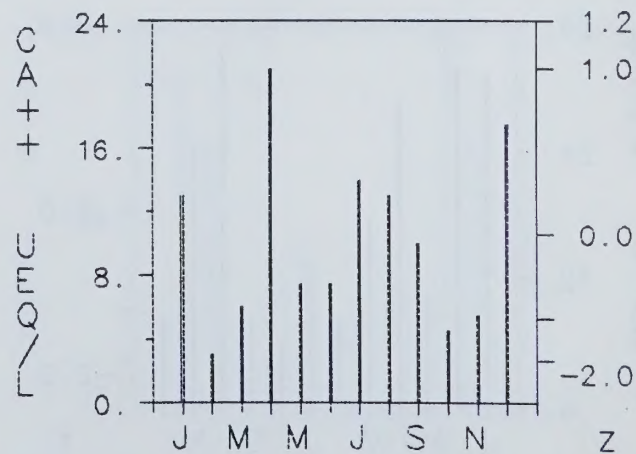
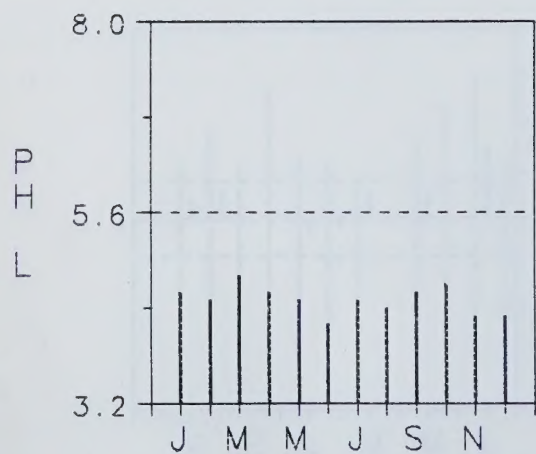
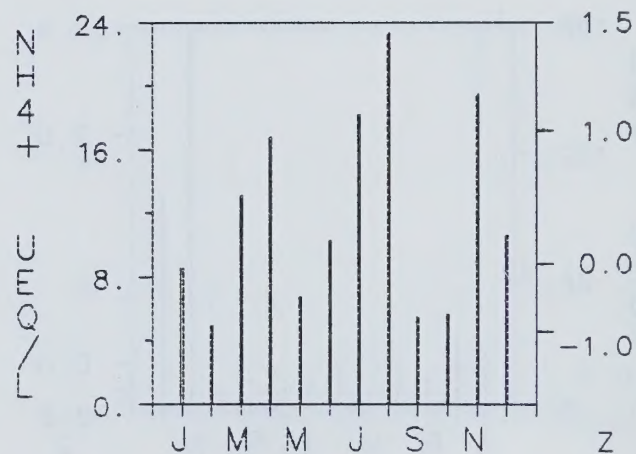
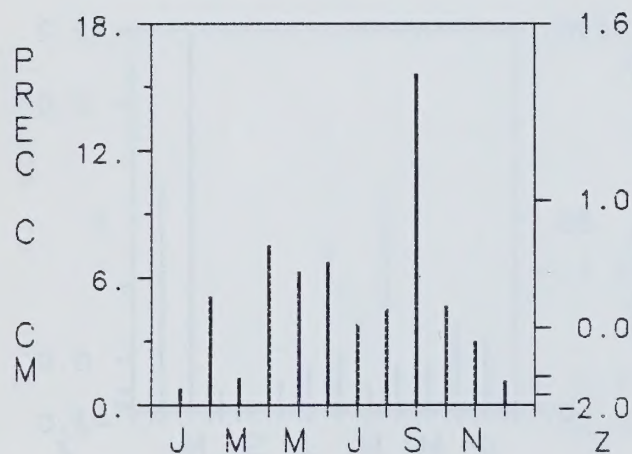
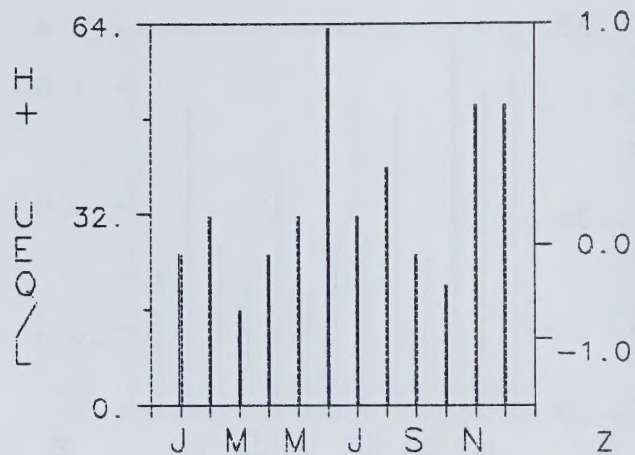
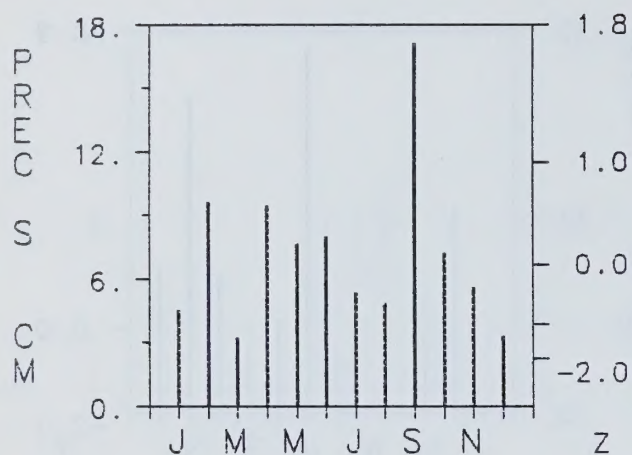
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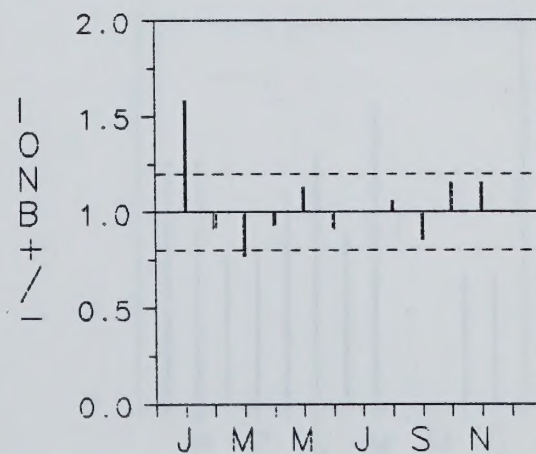
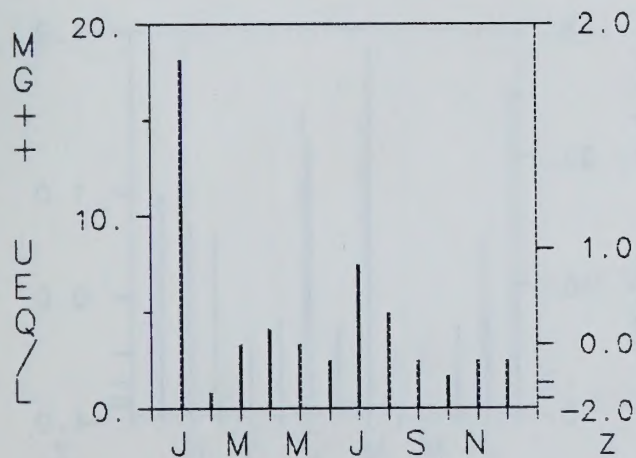
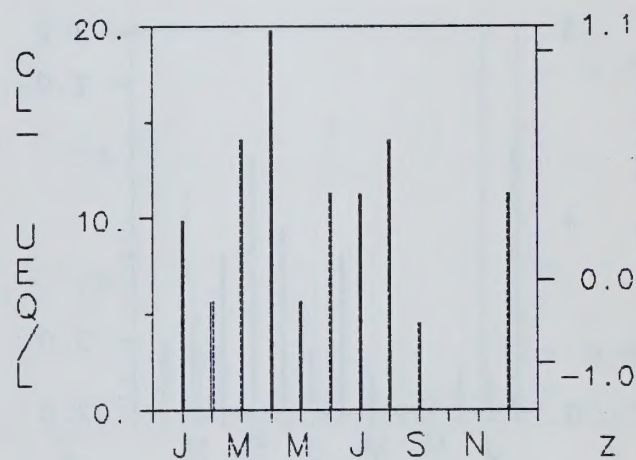
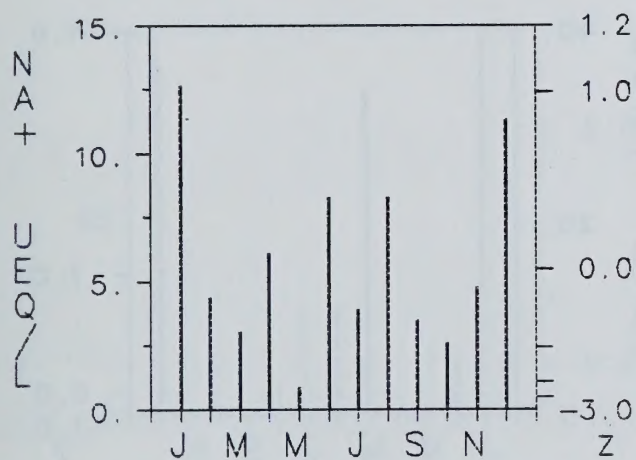
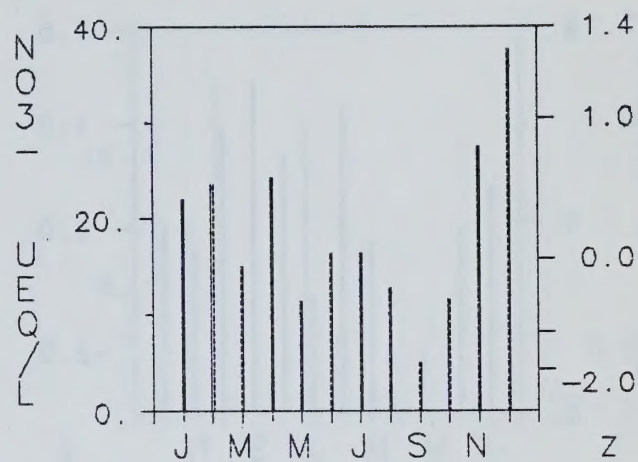
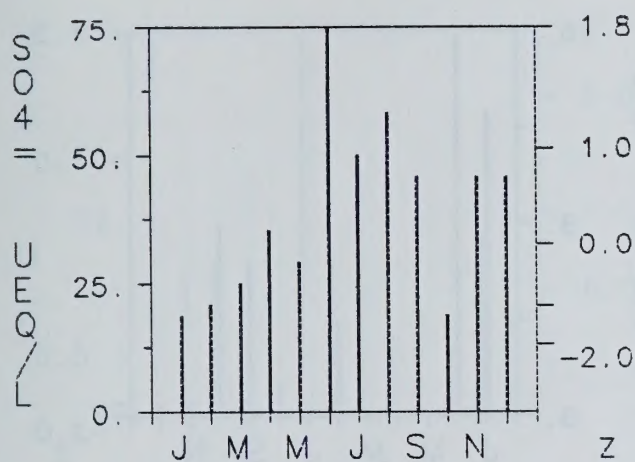
## CHIBOUGAMAU

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## CHIBOUGAMAU

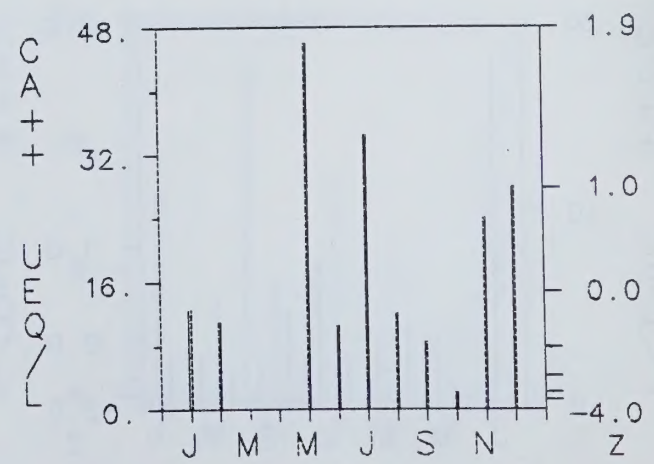
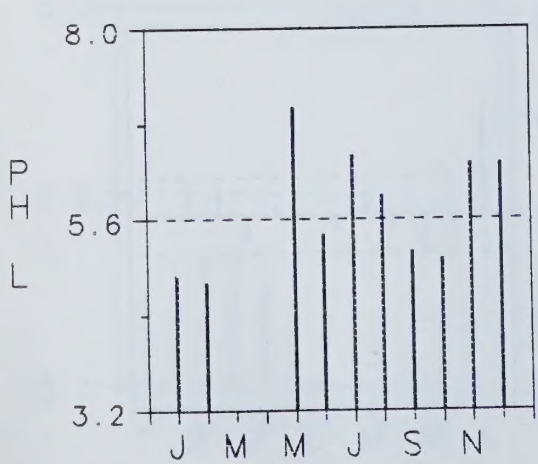
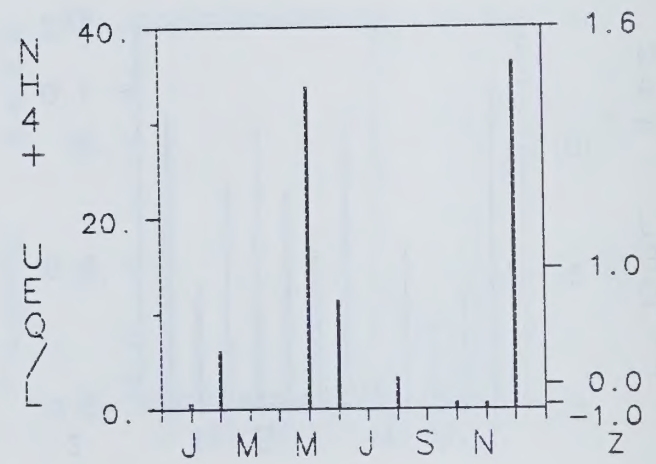
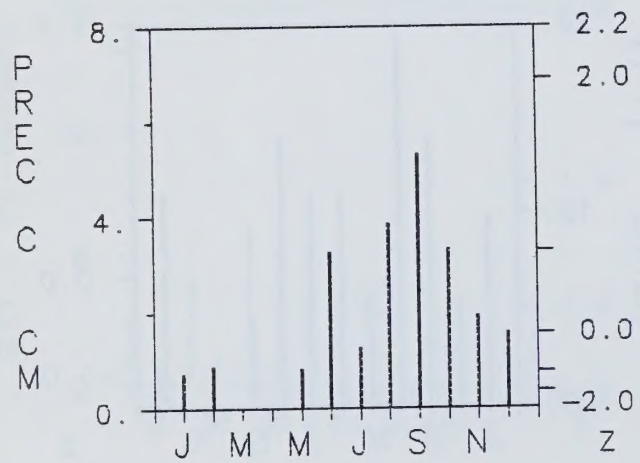
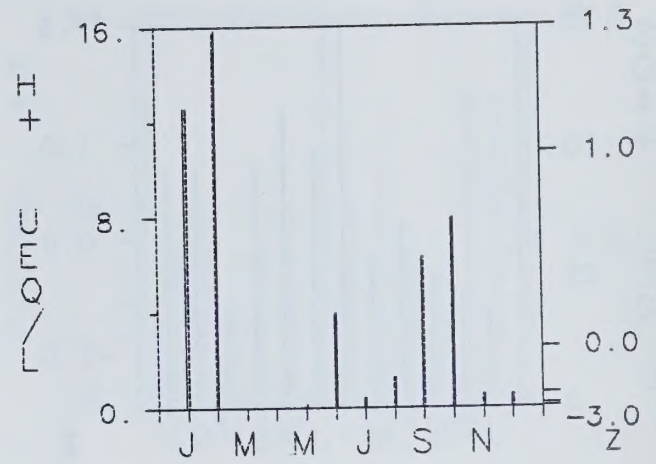
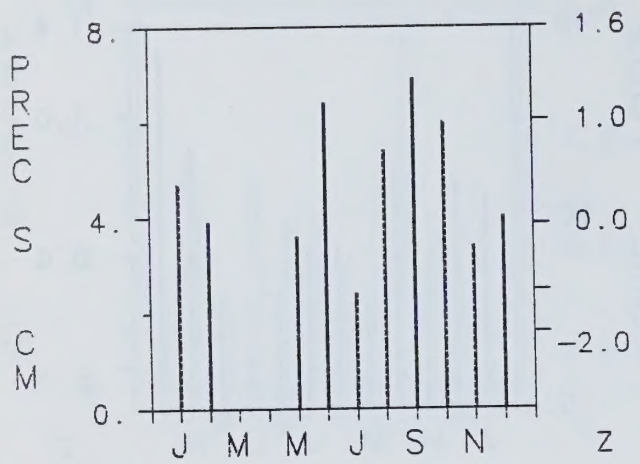
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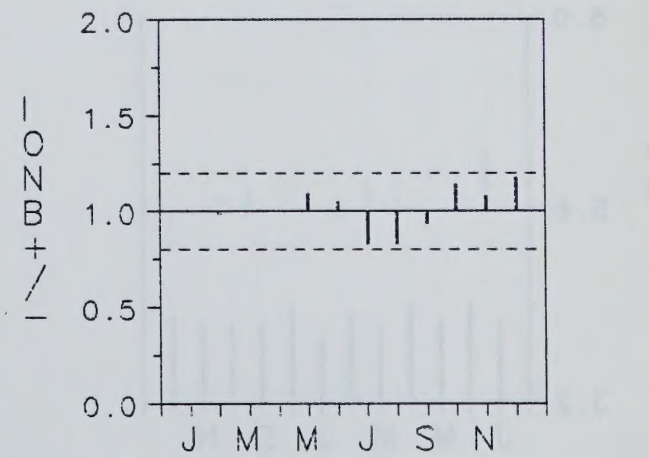
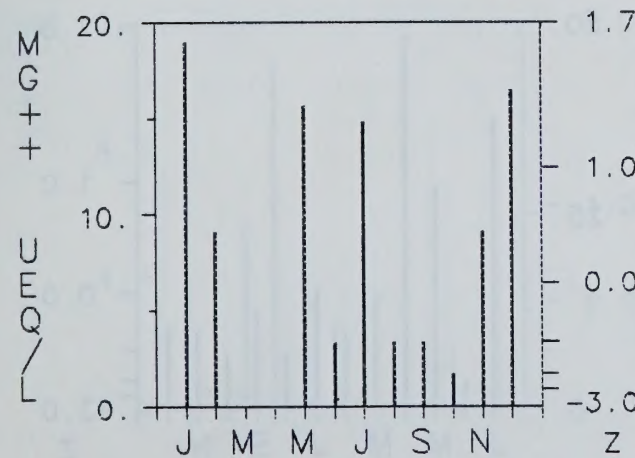
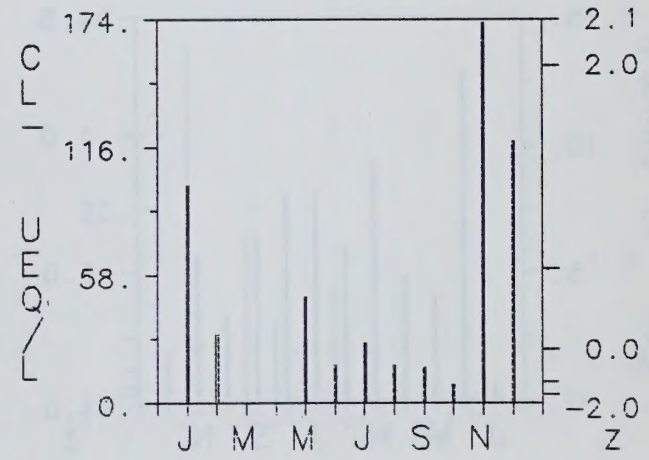
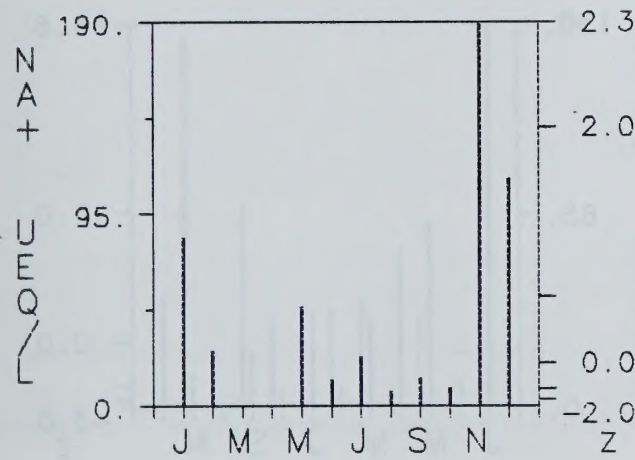
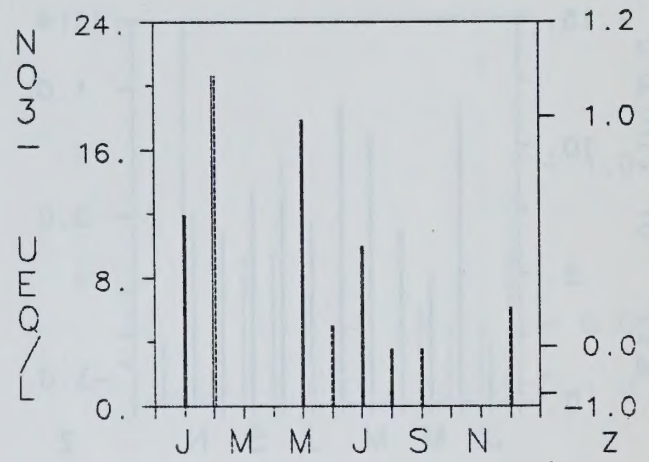
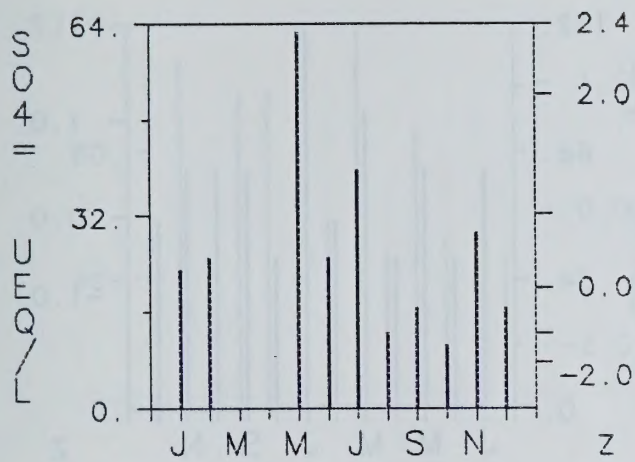
# FORT CHIMO

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## FORT CHIMO

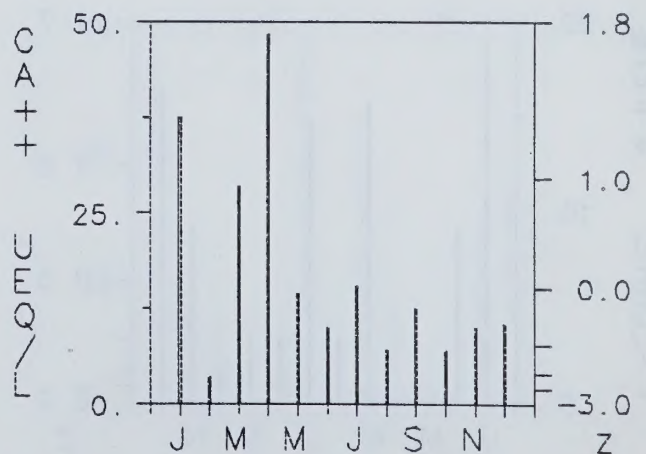
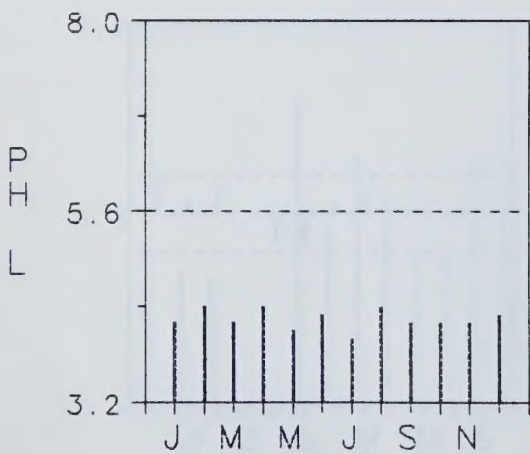
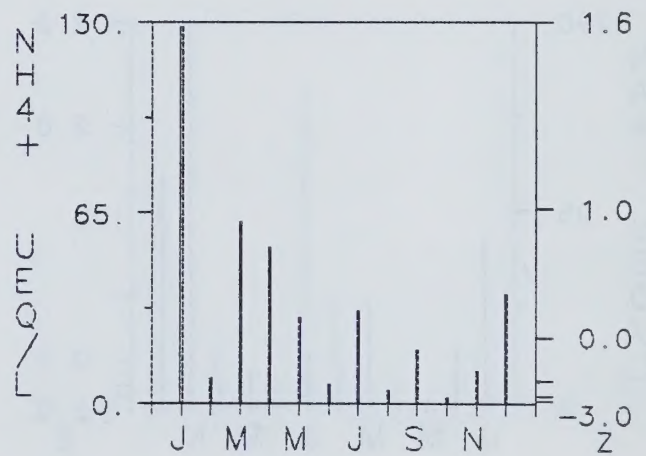
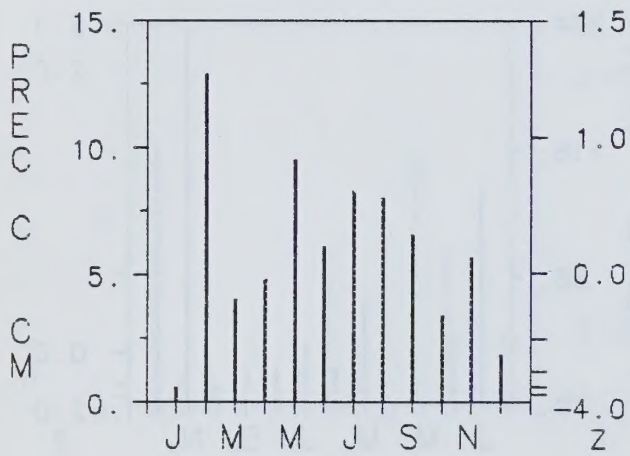
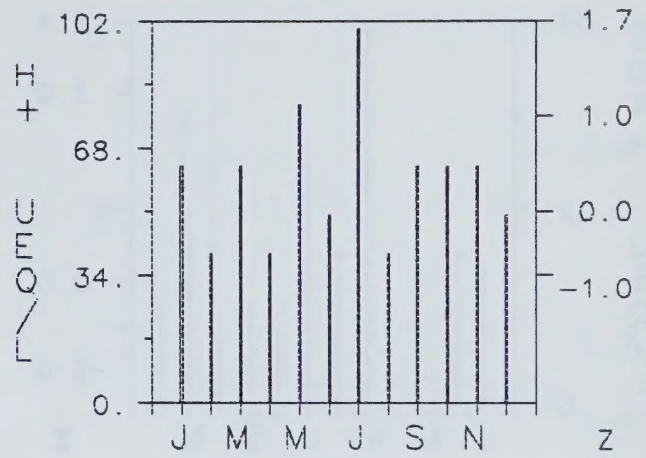
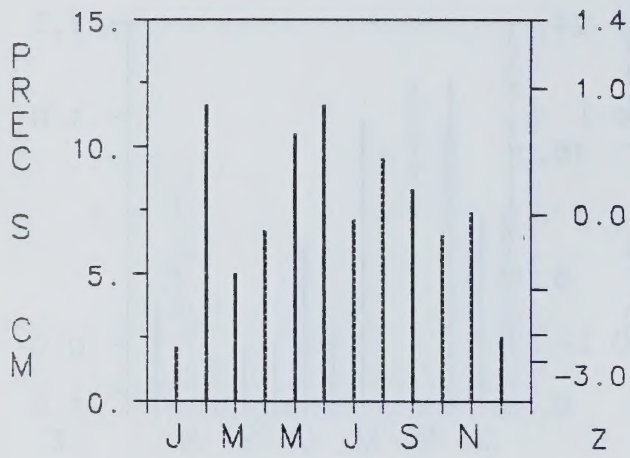
1981





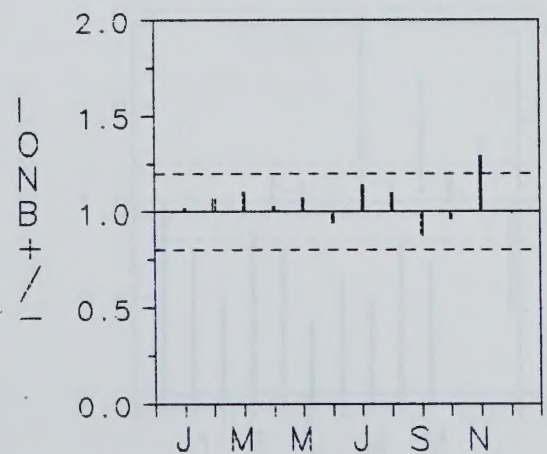
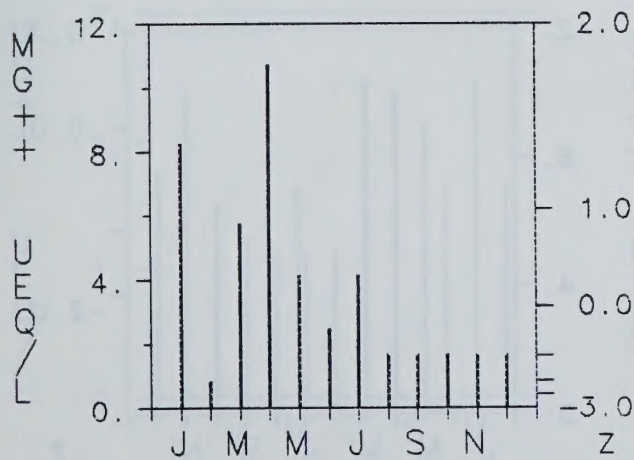
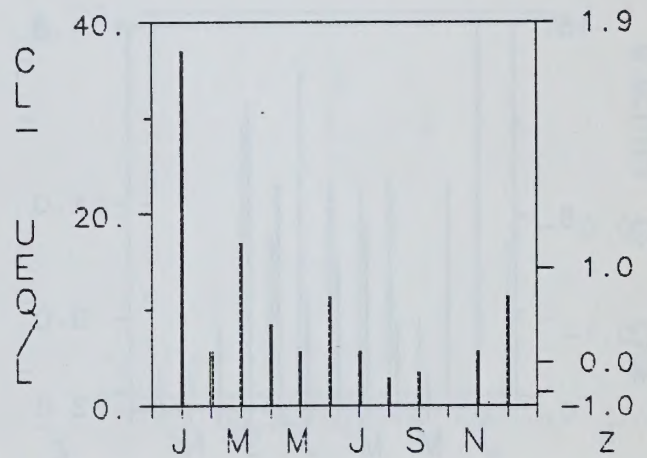
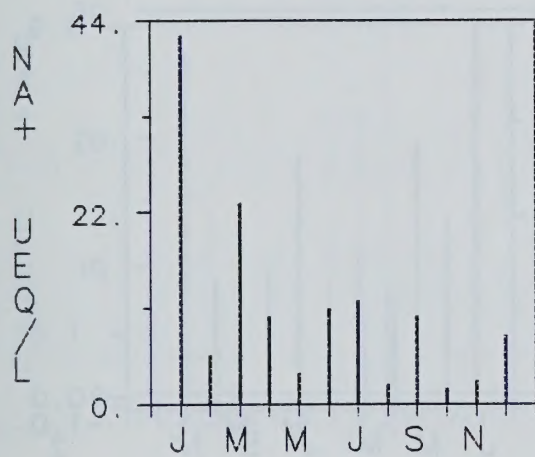
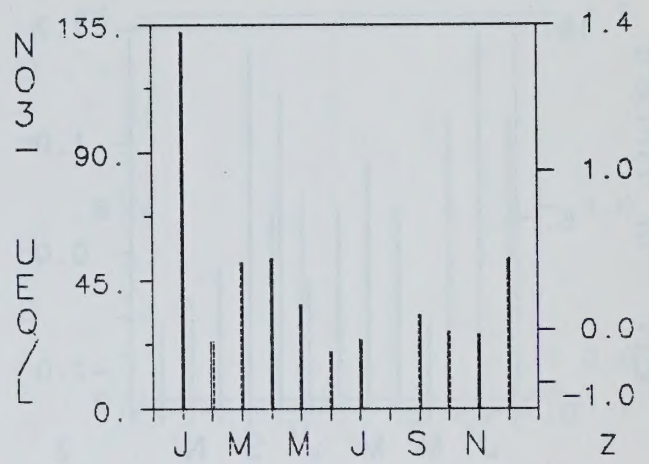
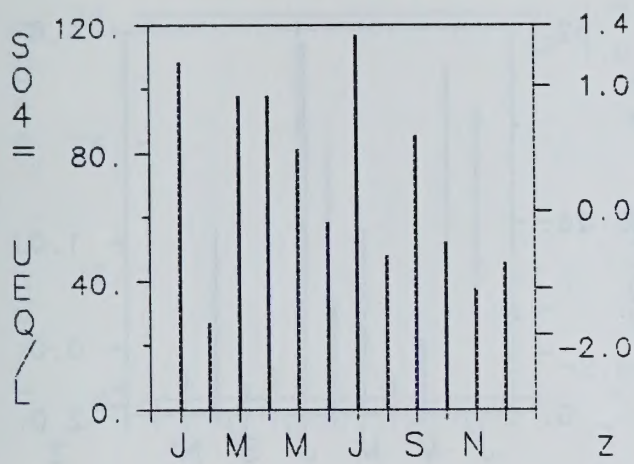
## MANIWAKI

1981



## MANIWAKI

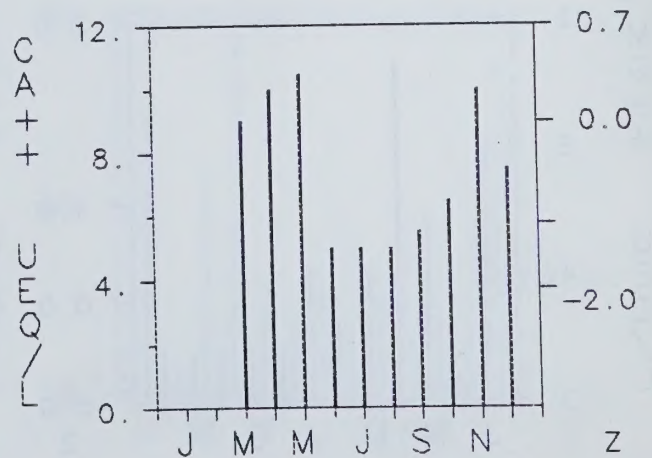
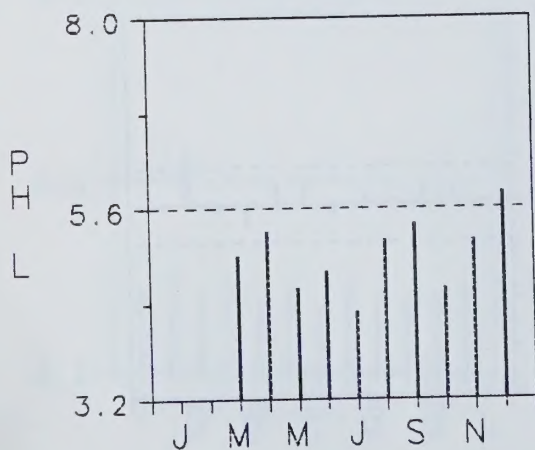
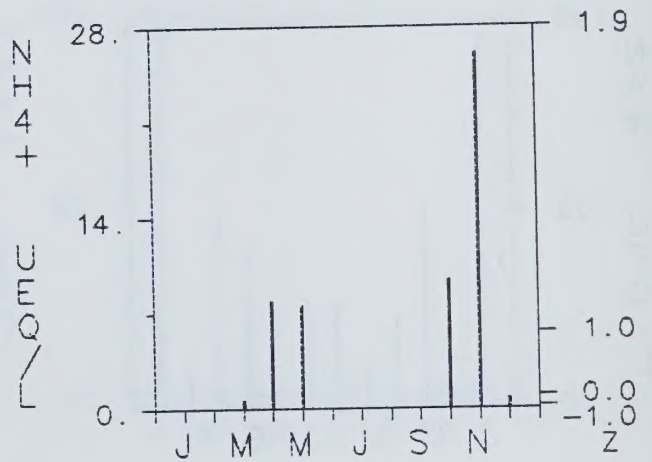
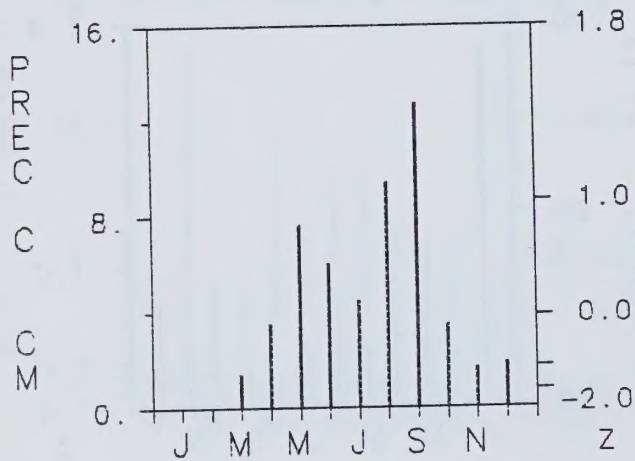
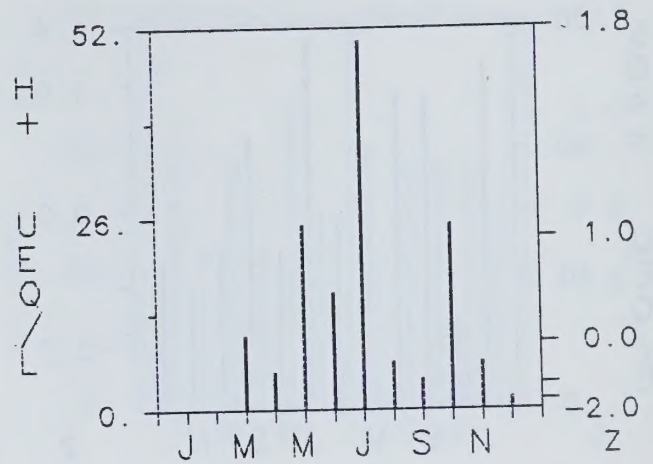
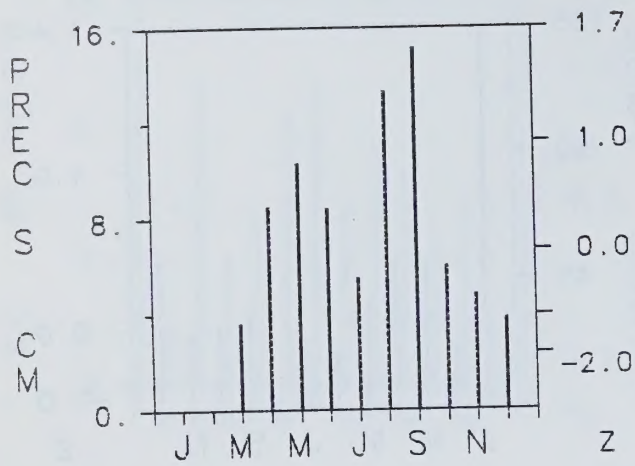
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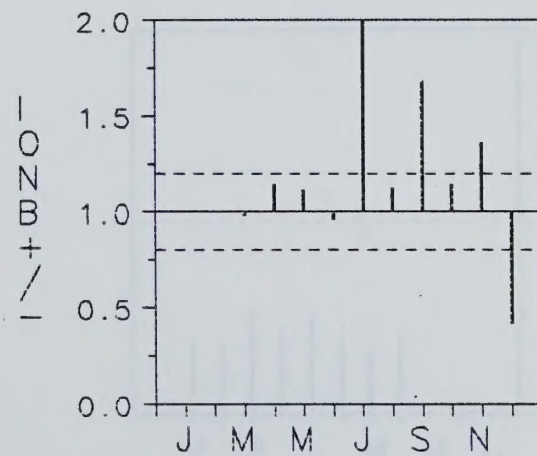
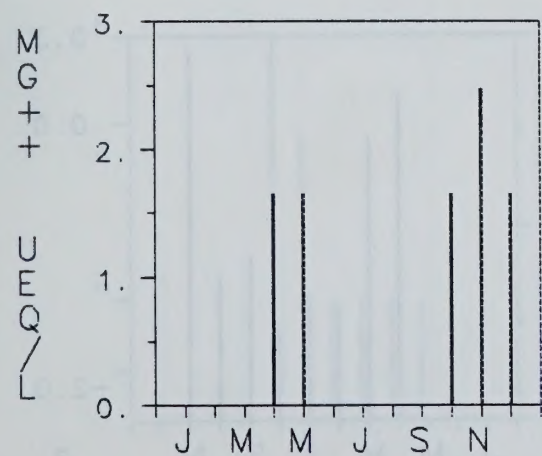
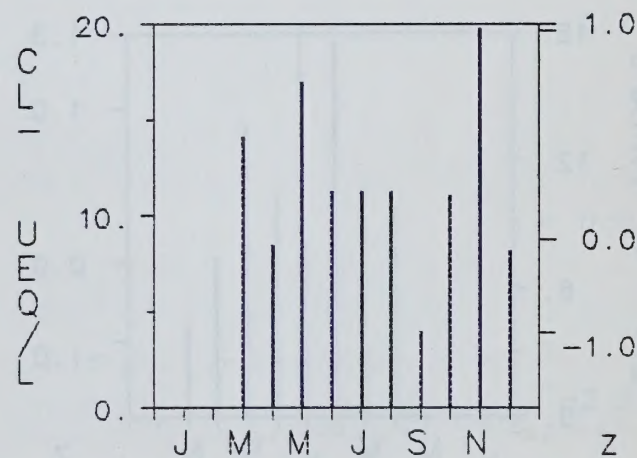
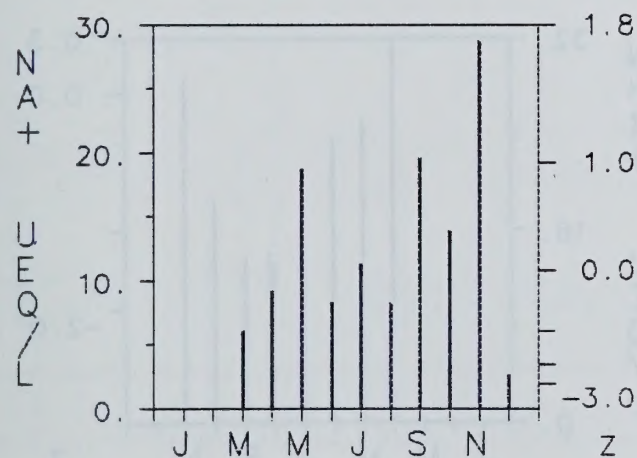
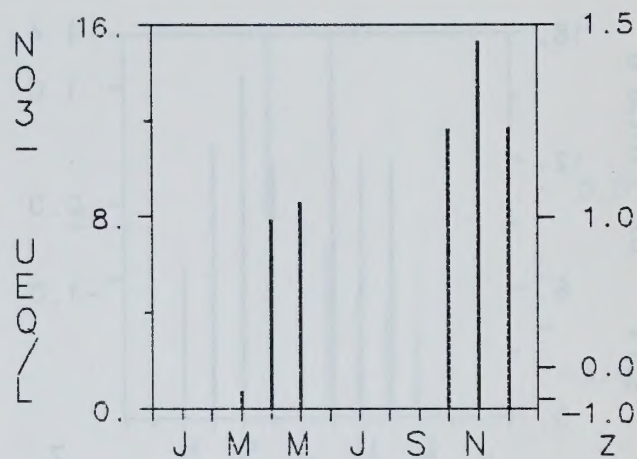
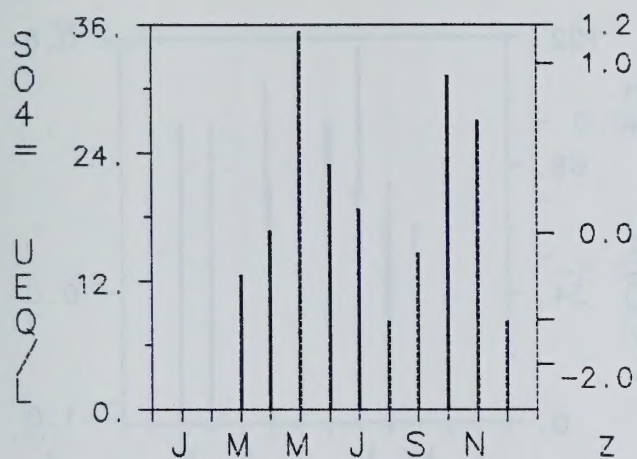
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## NITCHEQUON

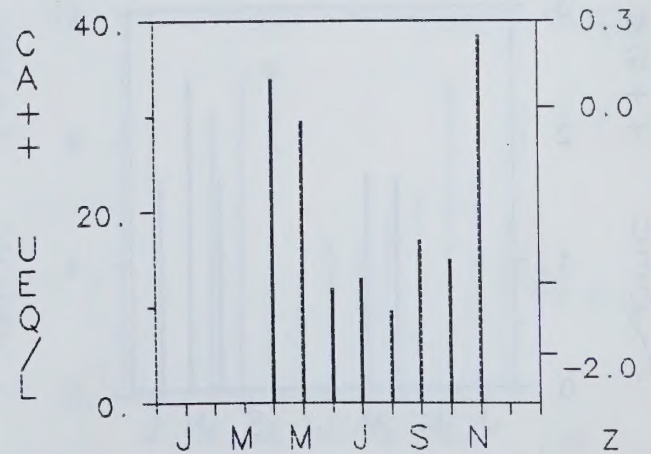
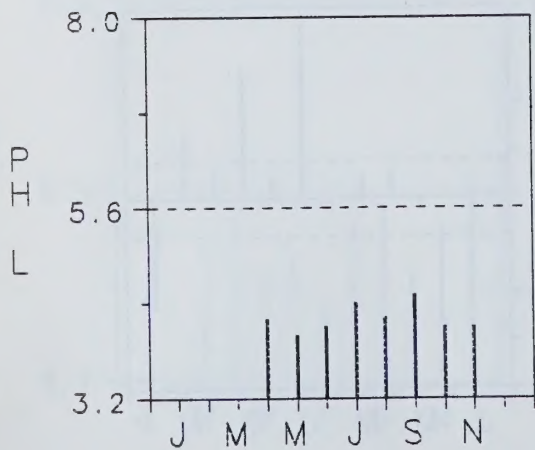
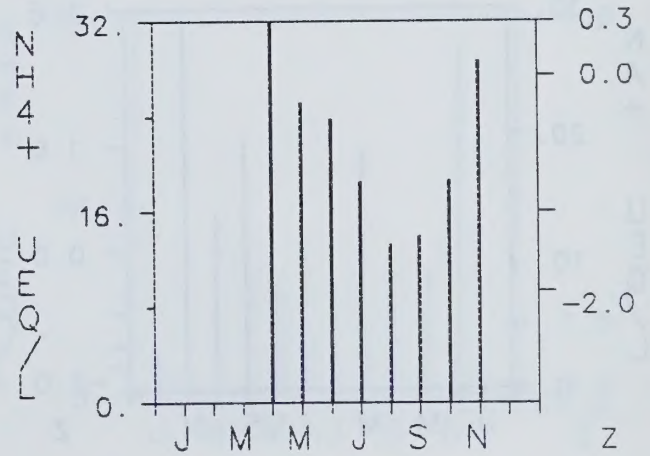
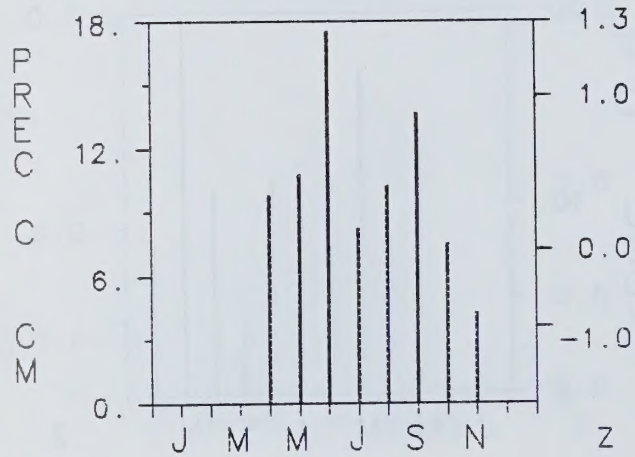
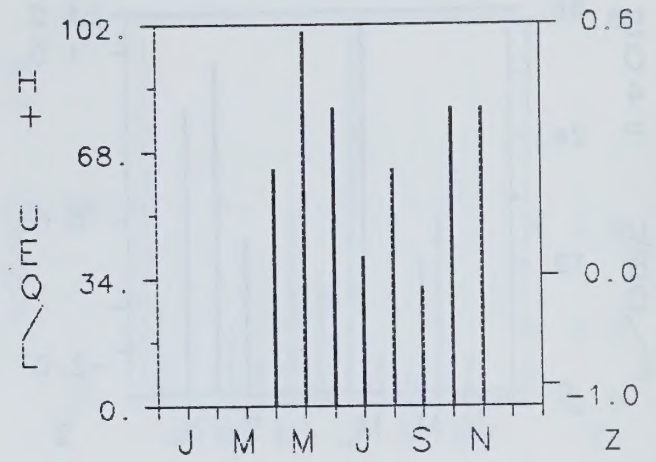
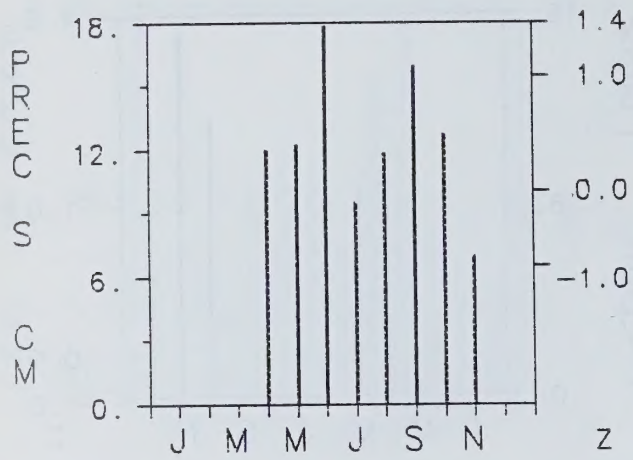
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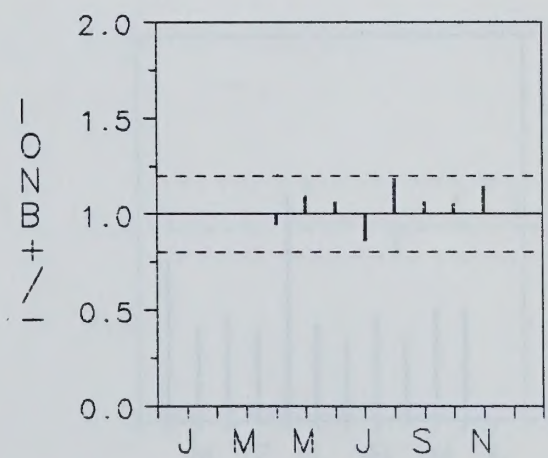
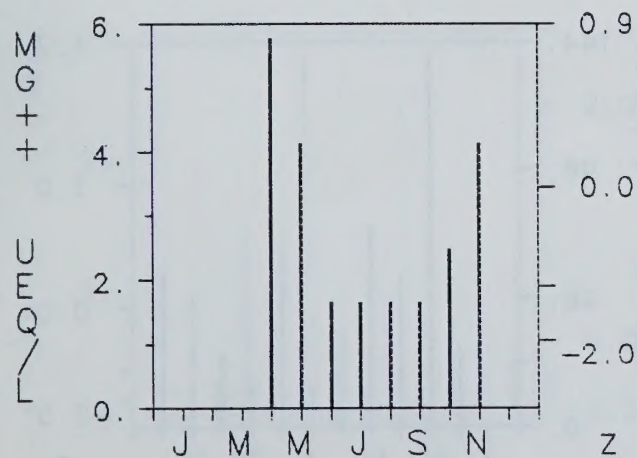
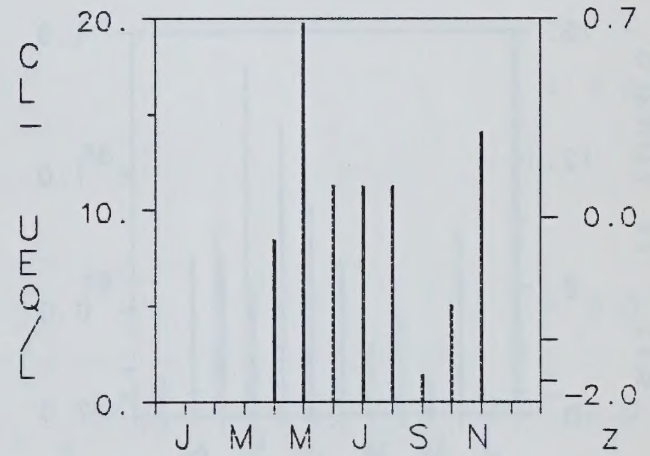
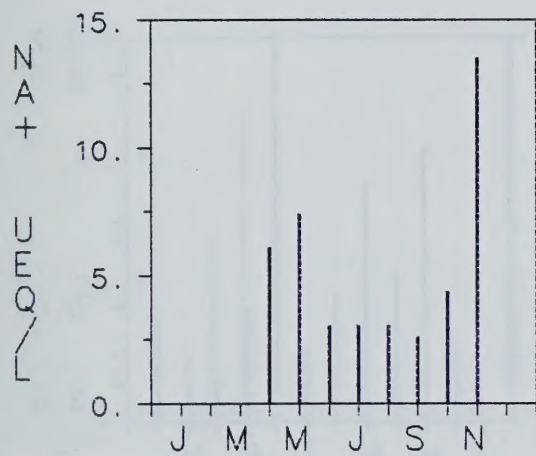
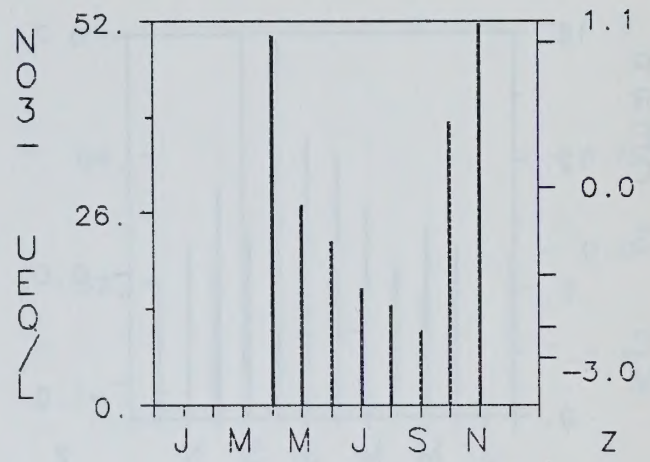
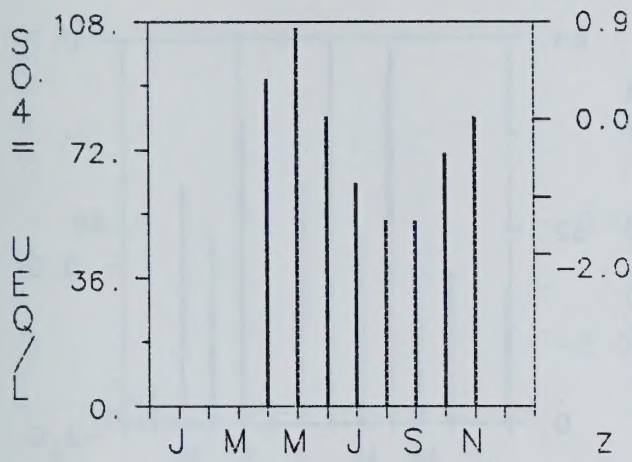
## QUEBEC CITY

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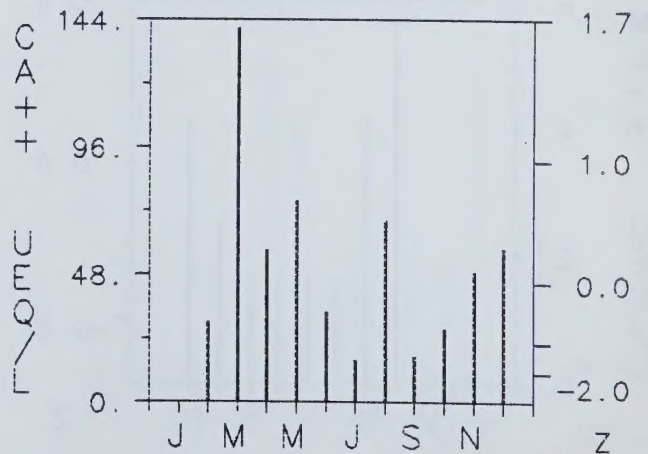
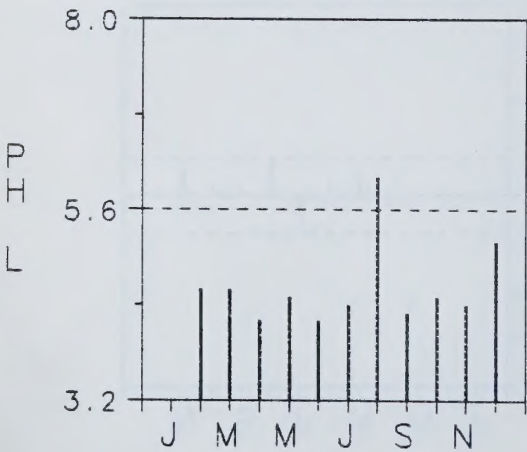
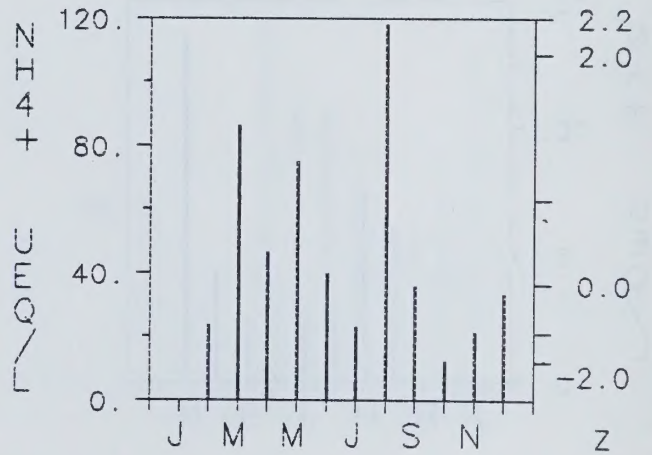
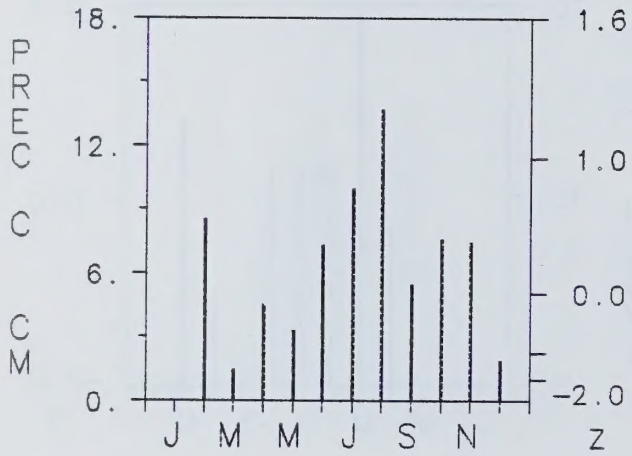
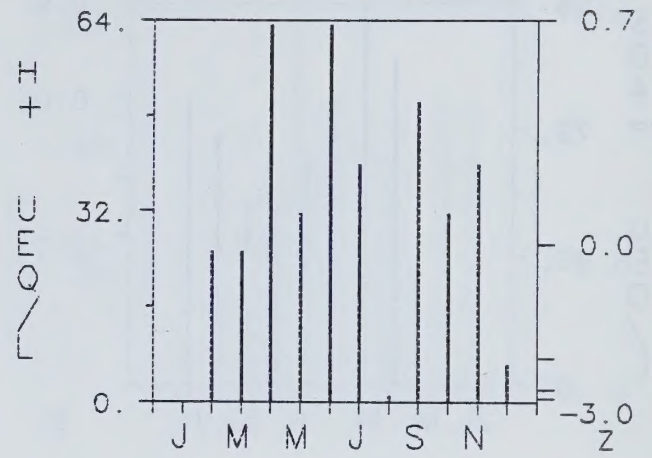
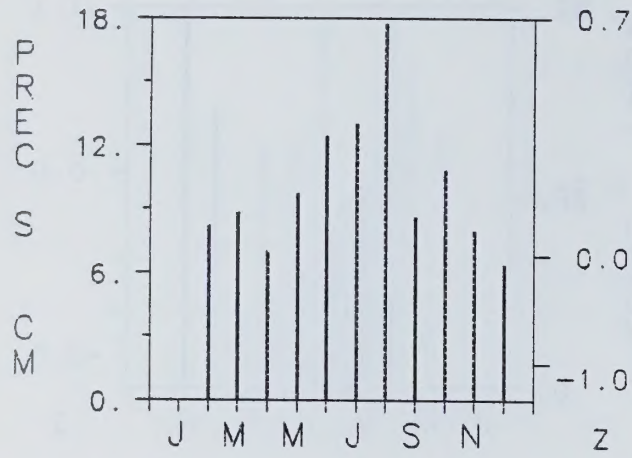
## QUEBEC CITY

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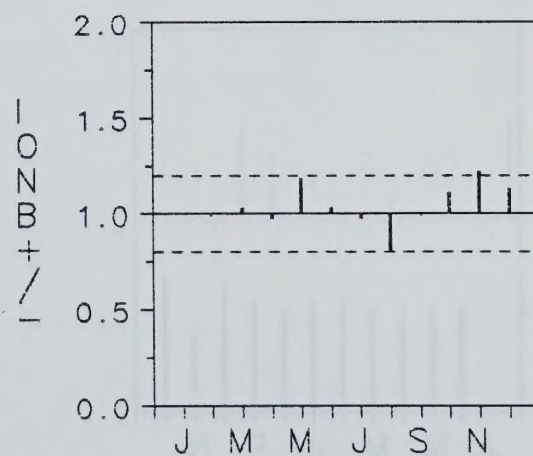
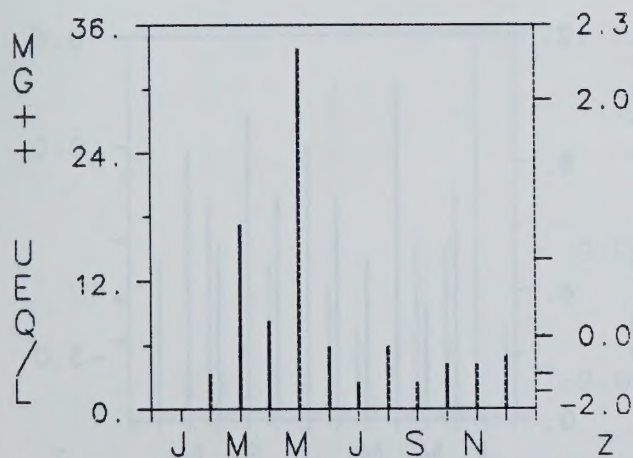
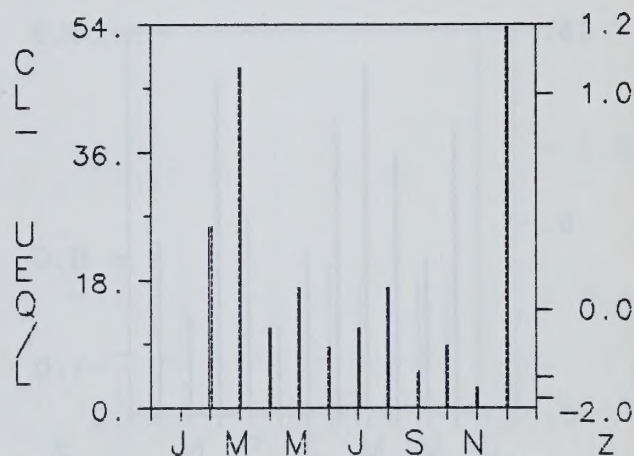
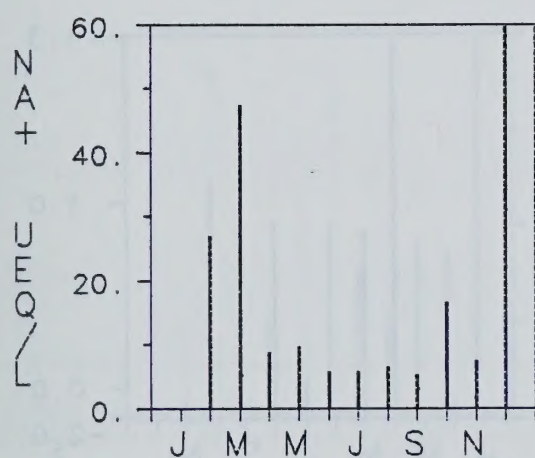
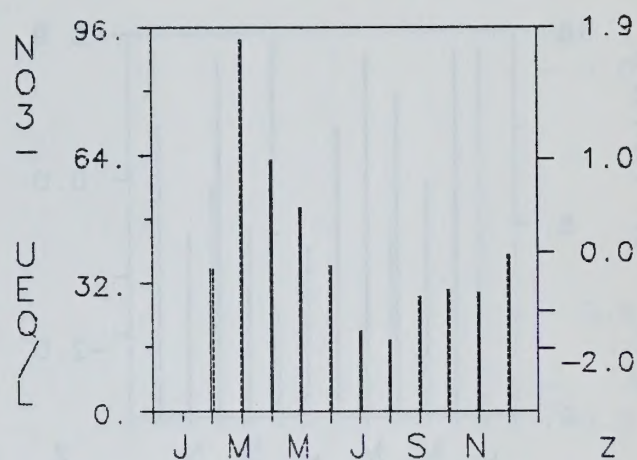
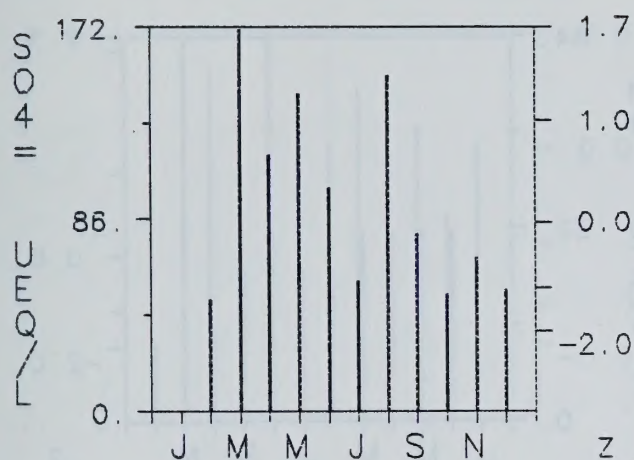


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## ST HUBERT

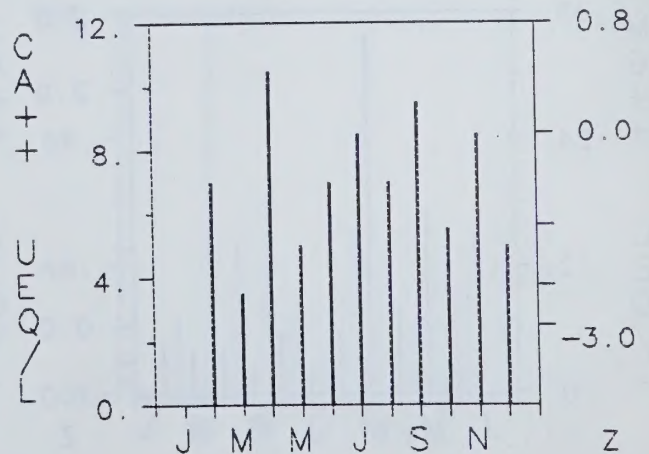
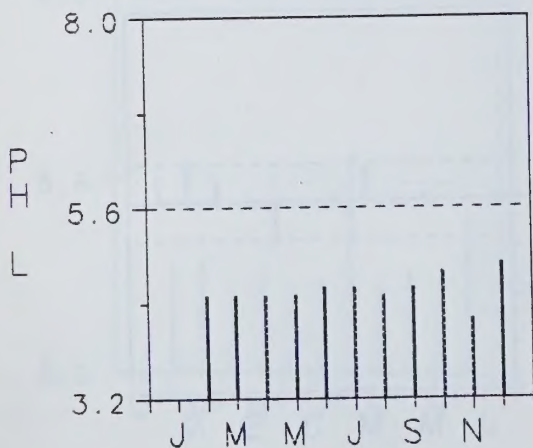
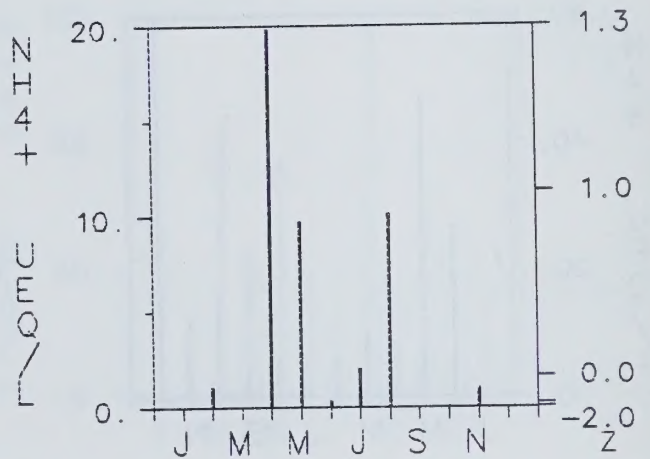
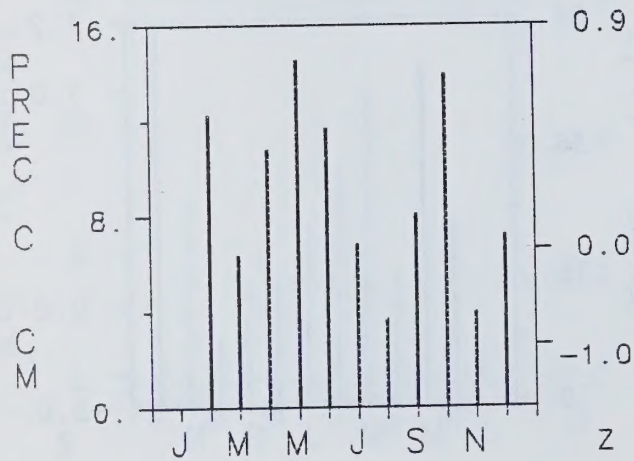
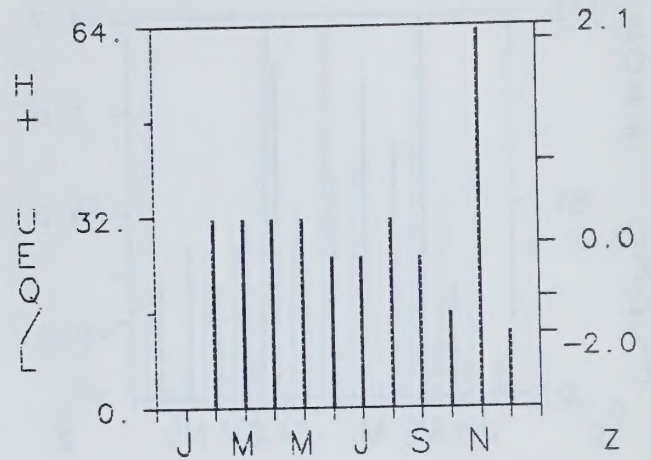
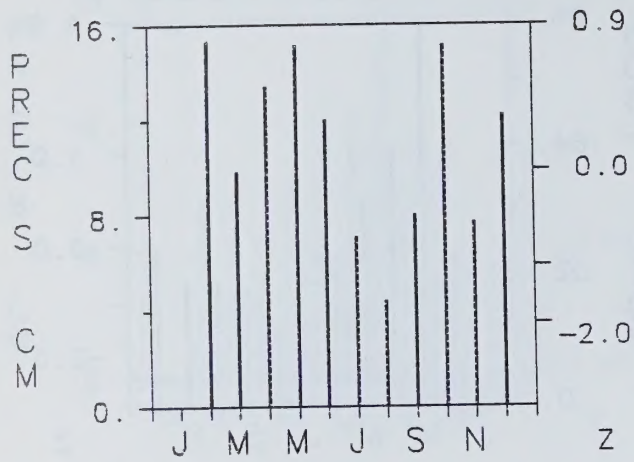
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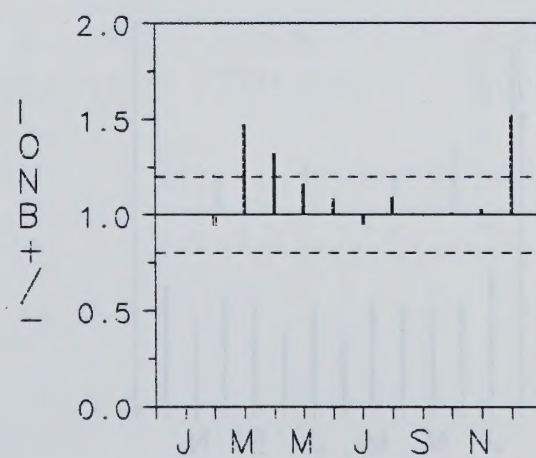
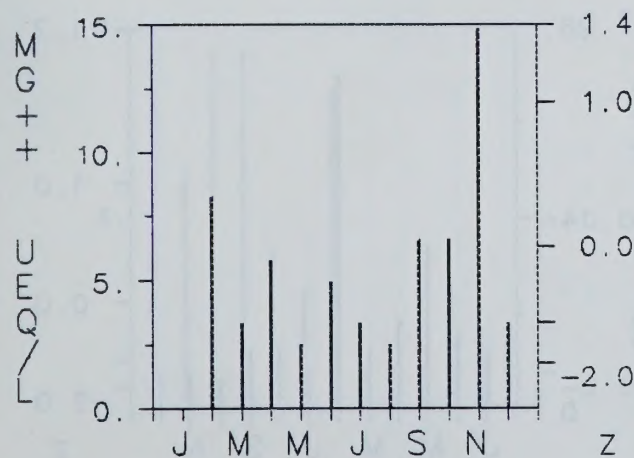
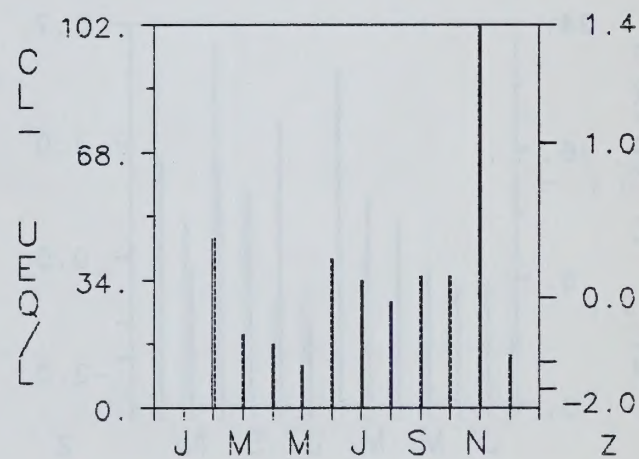
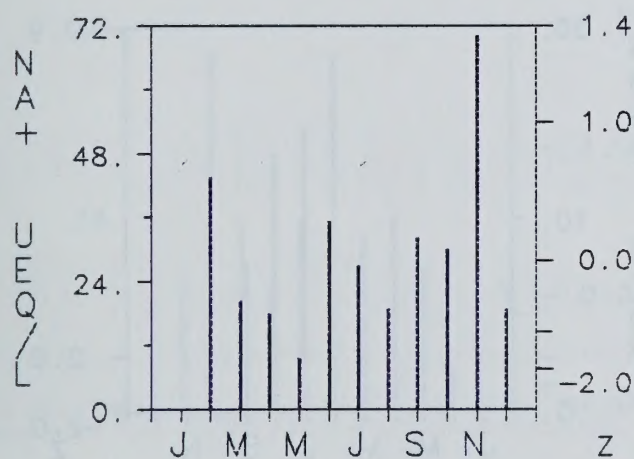
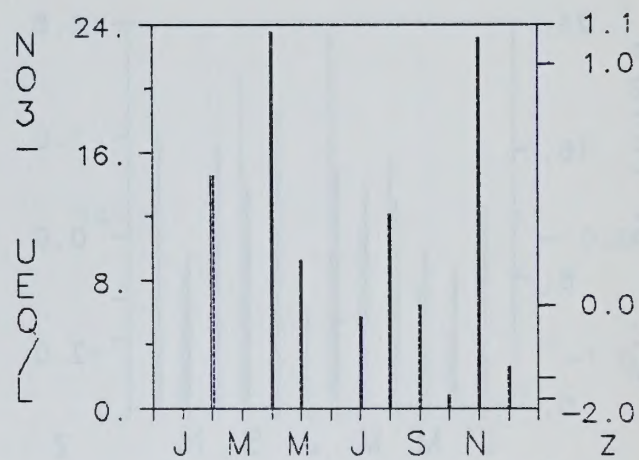
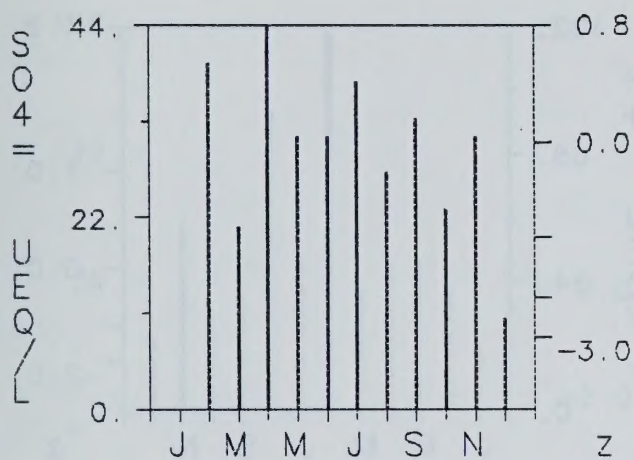
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## SEPT ISLES

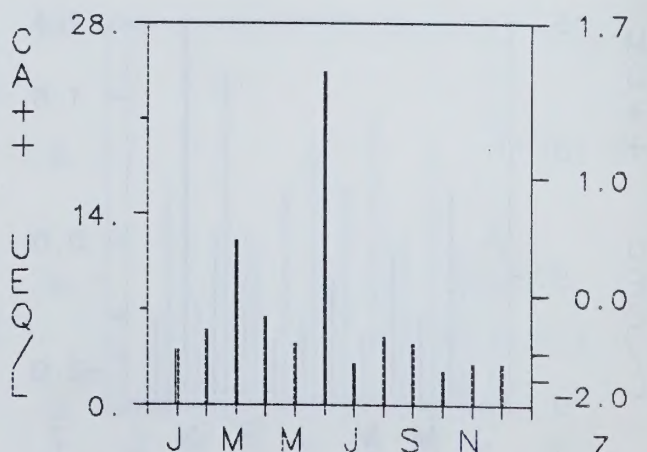
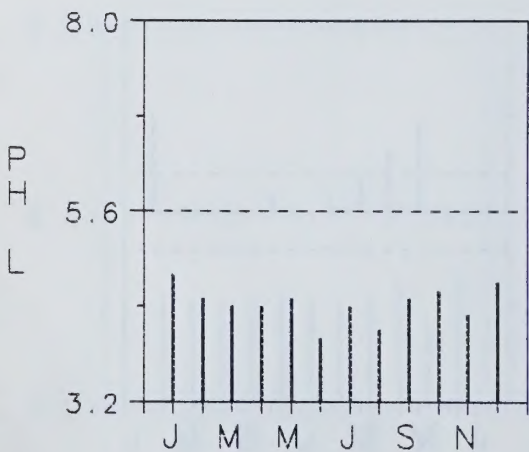
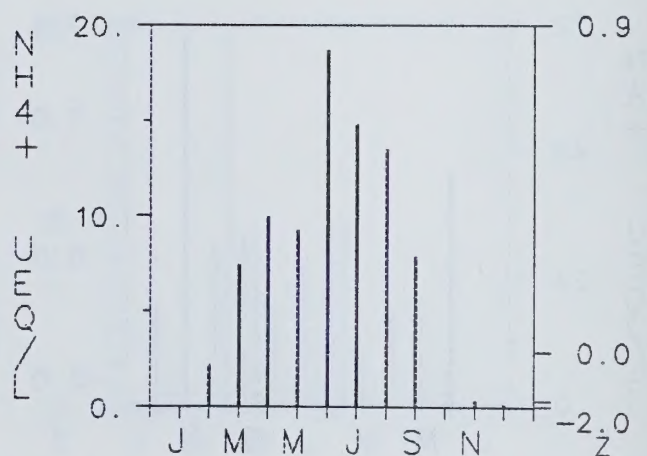
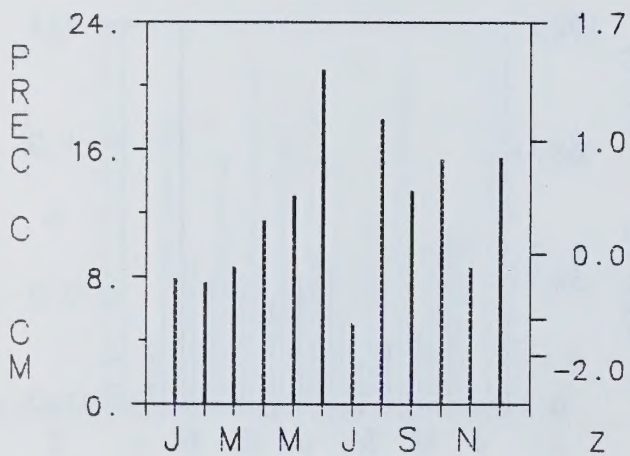
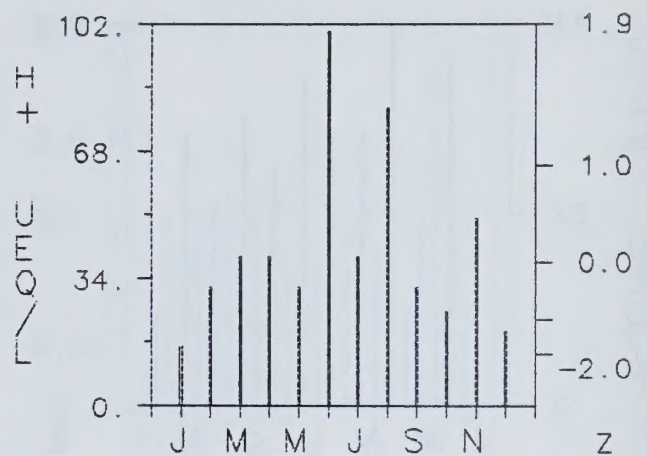
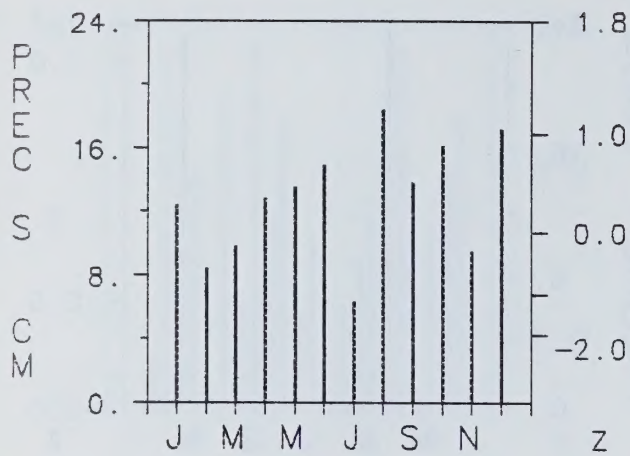
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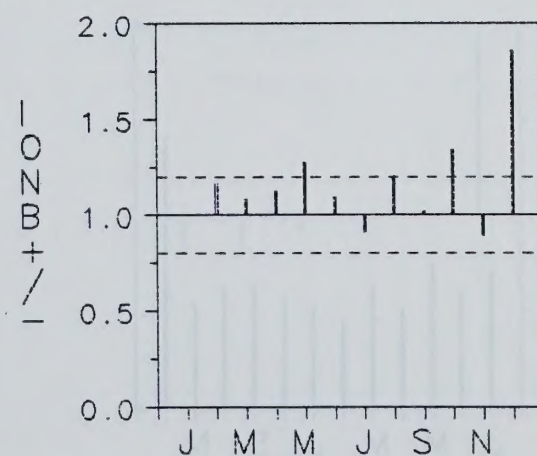
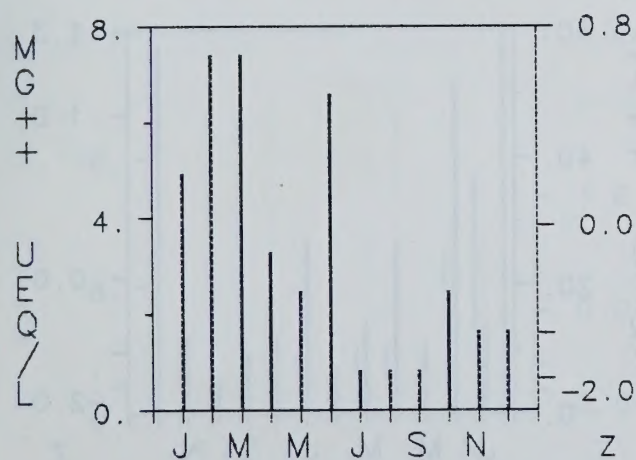
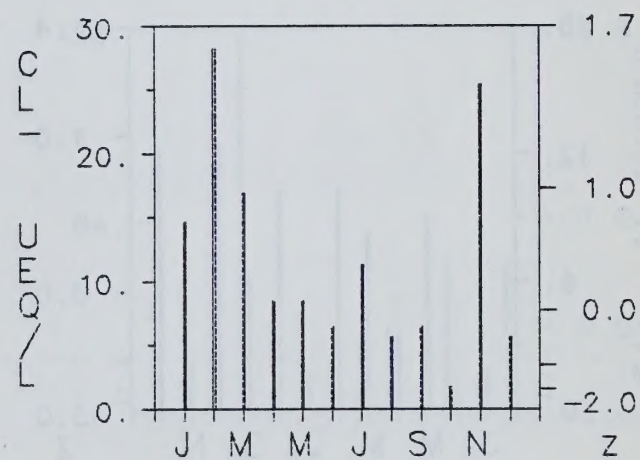
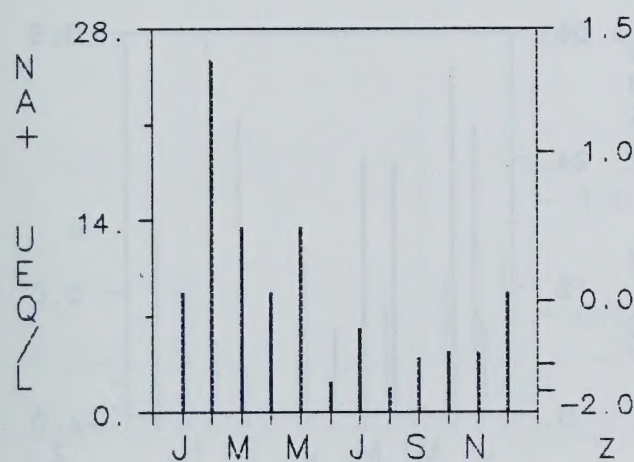
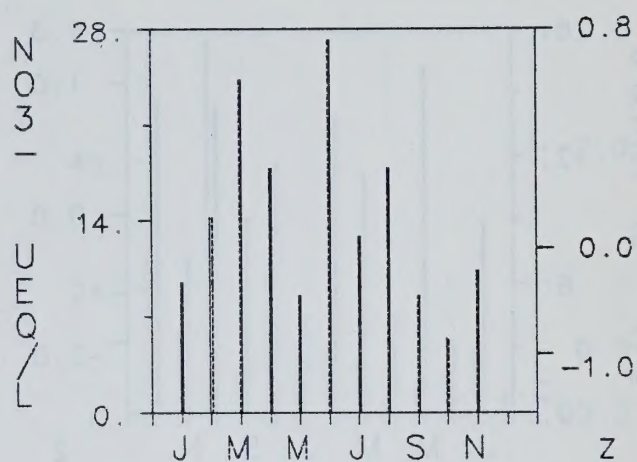
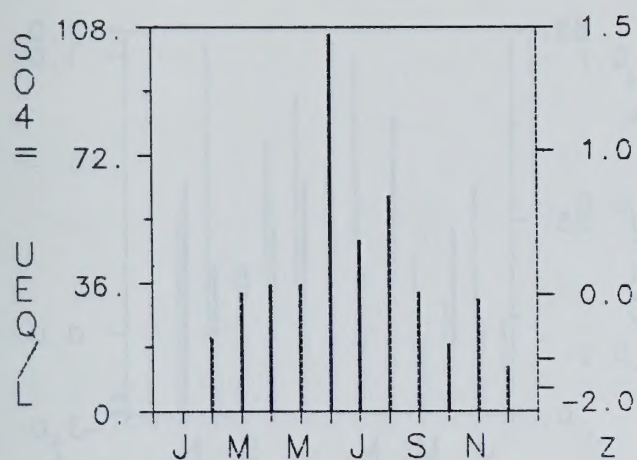
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## ACADIA FES

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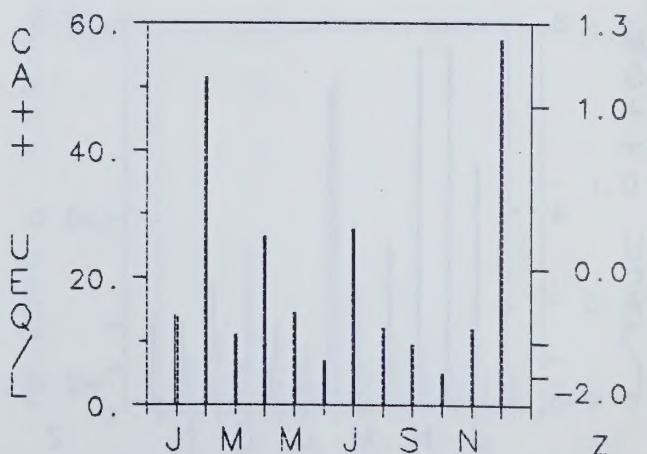
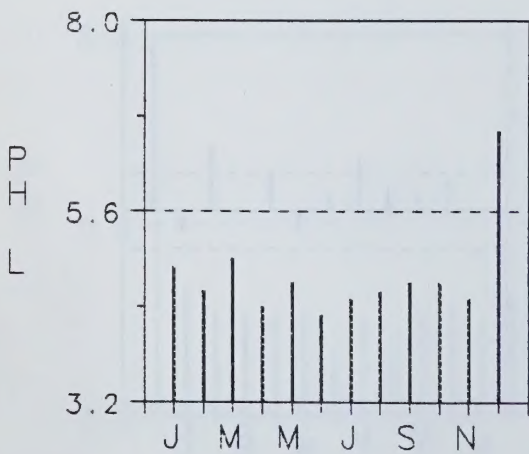
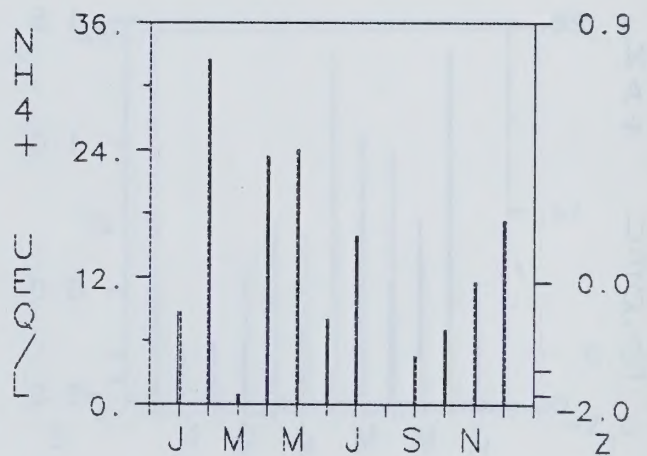
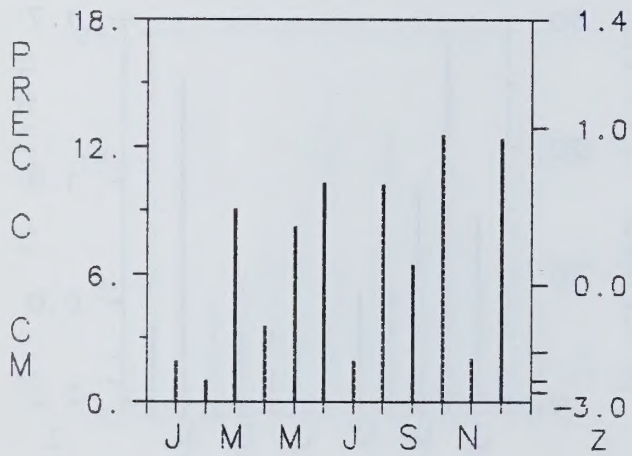
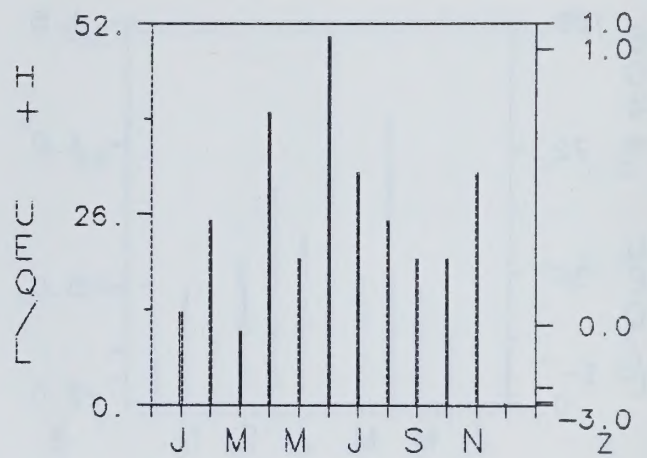
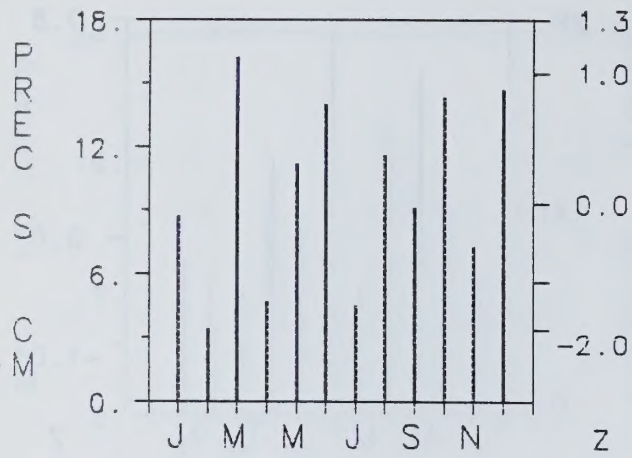




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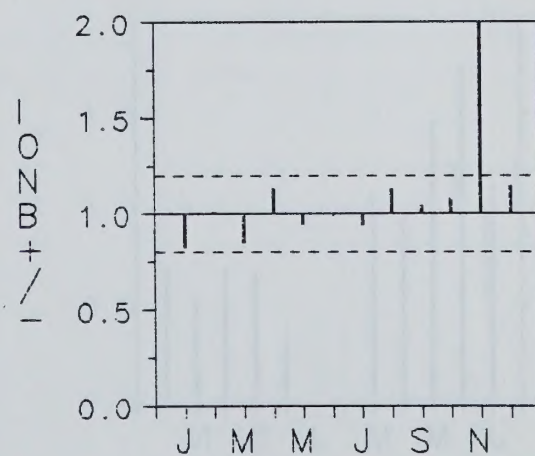
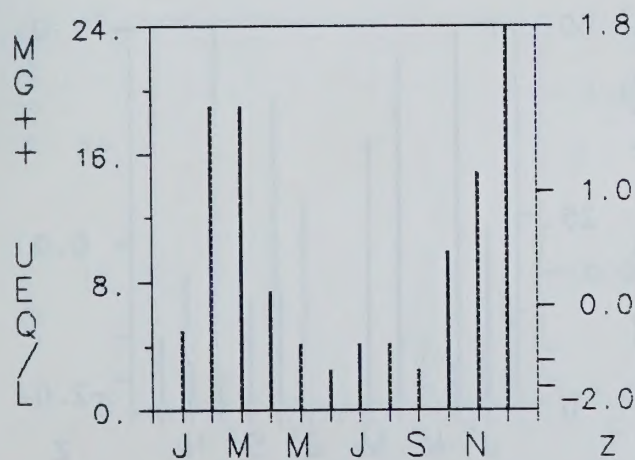
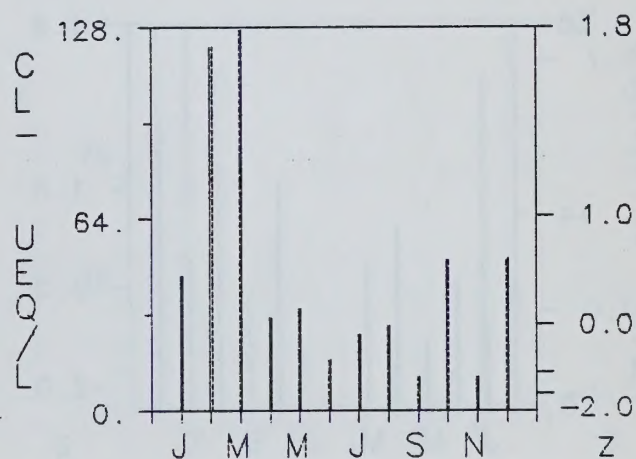
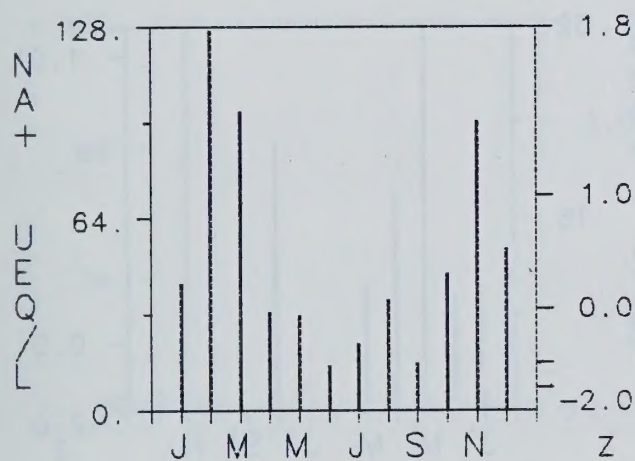
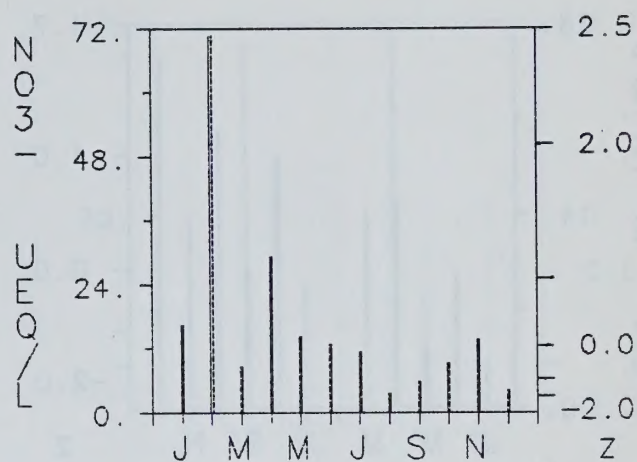
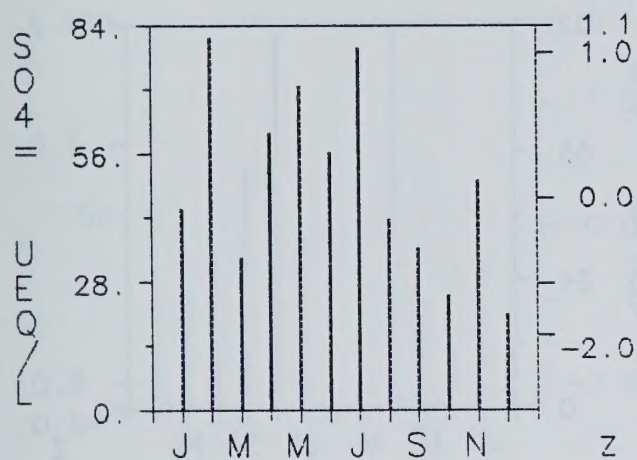
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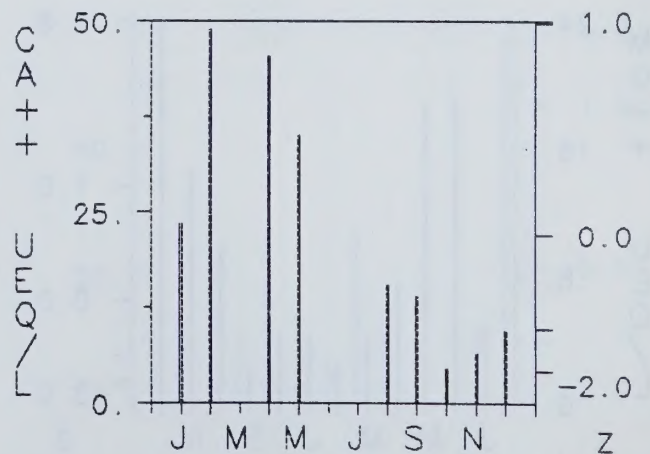
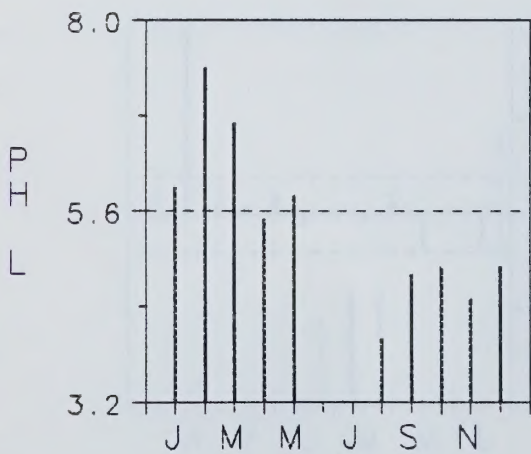
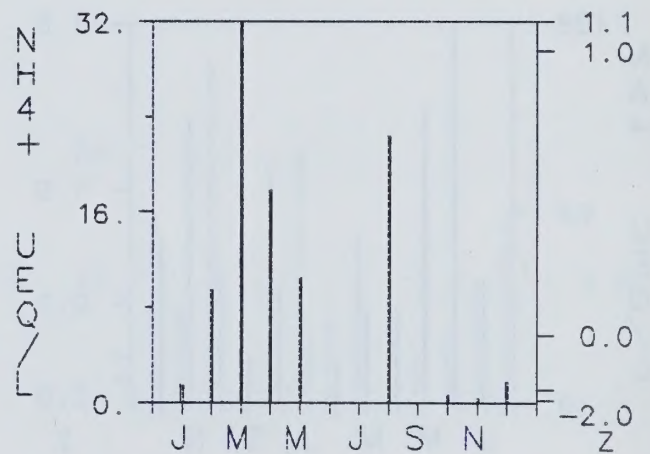
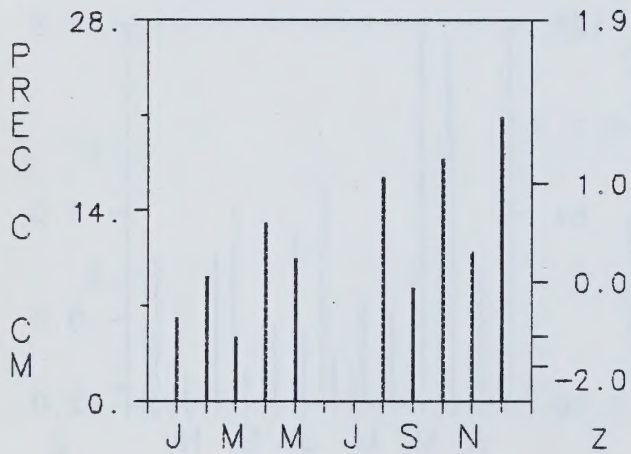
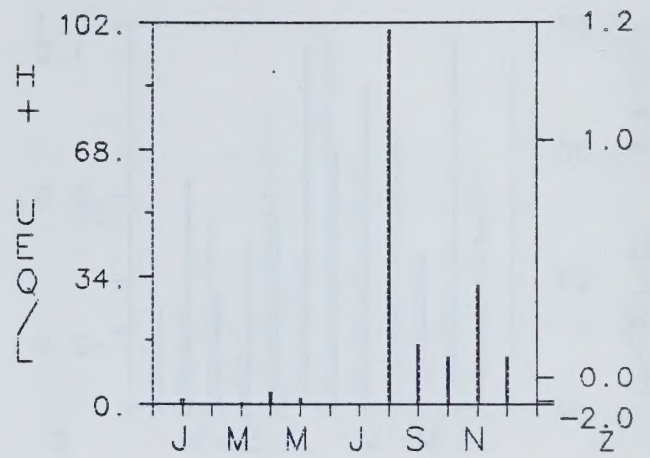
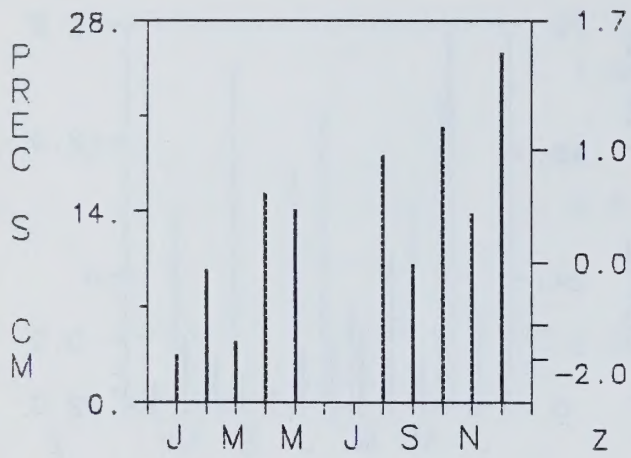




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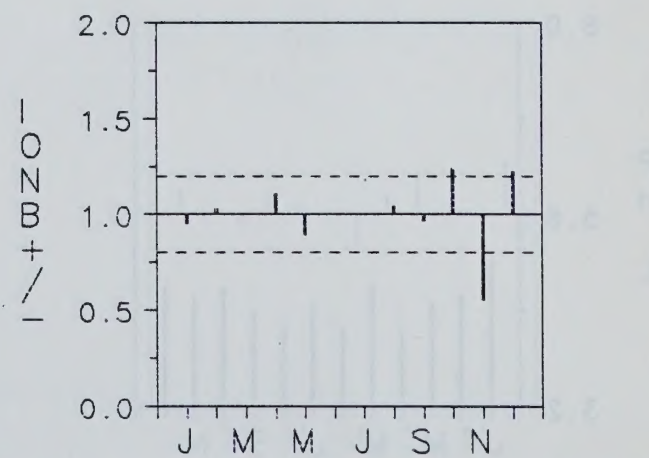
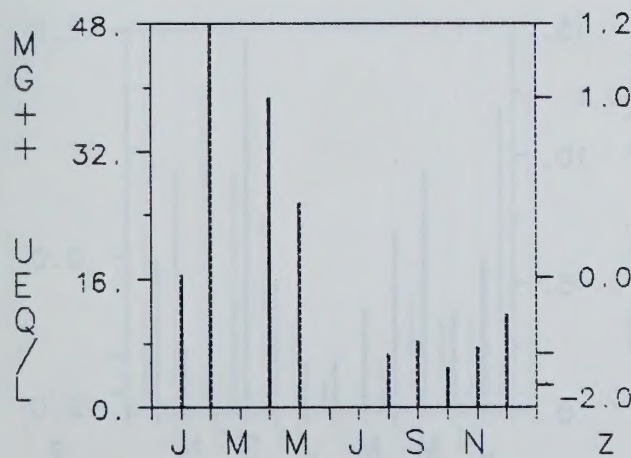
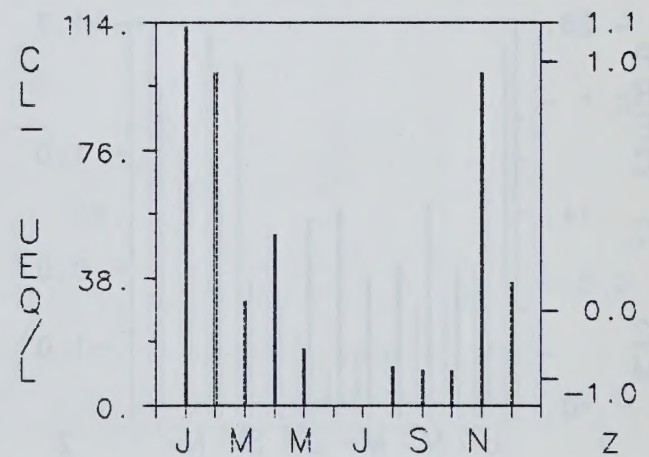
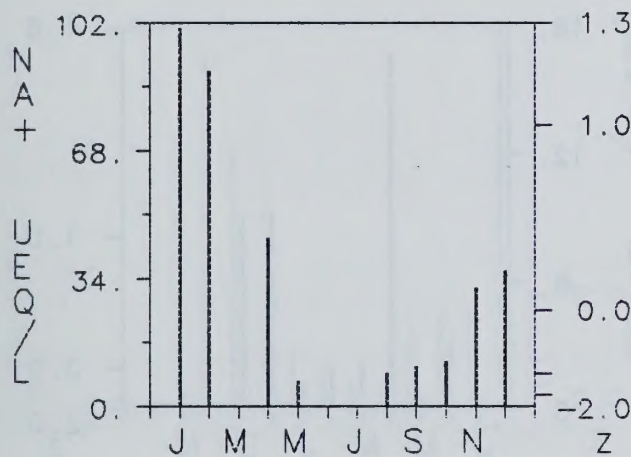
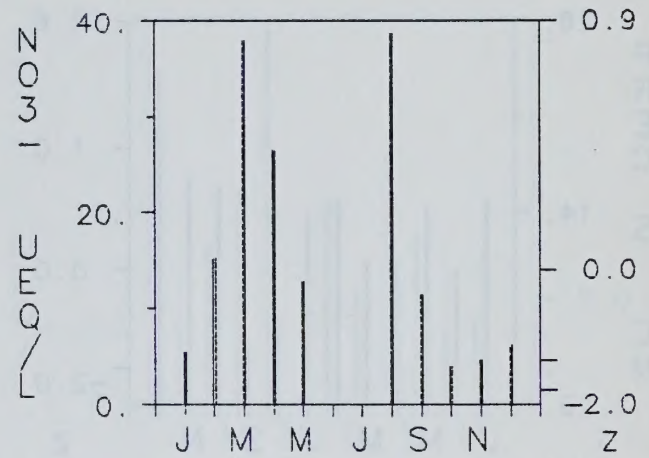
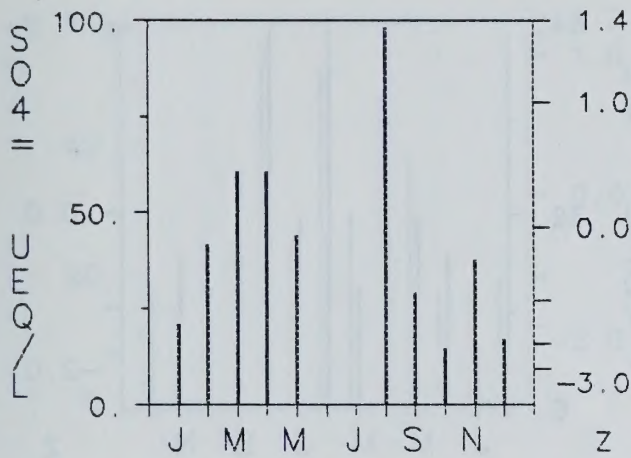
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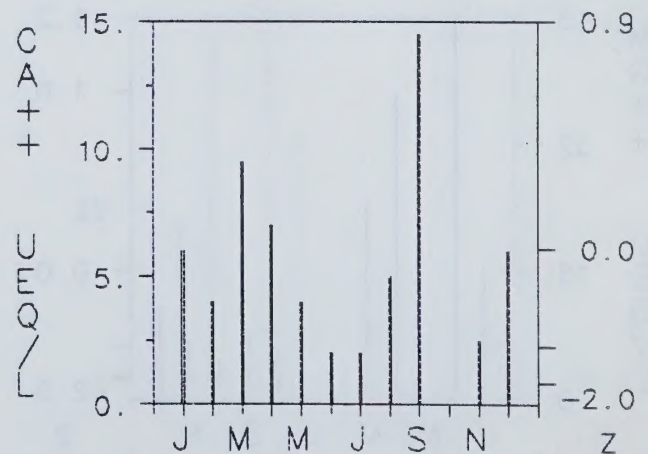
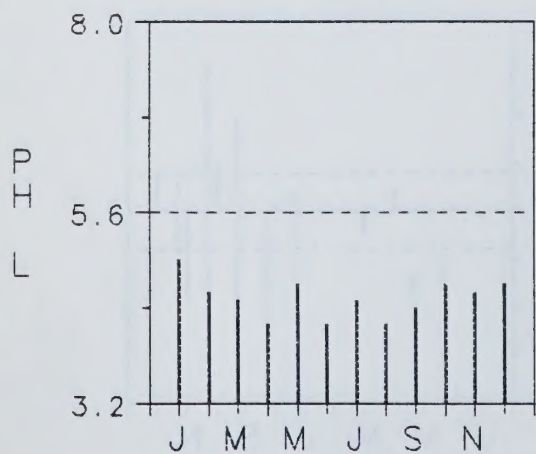
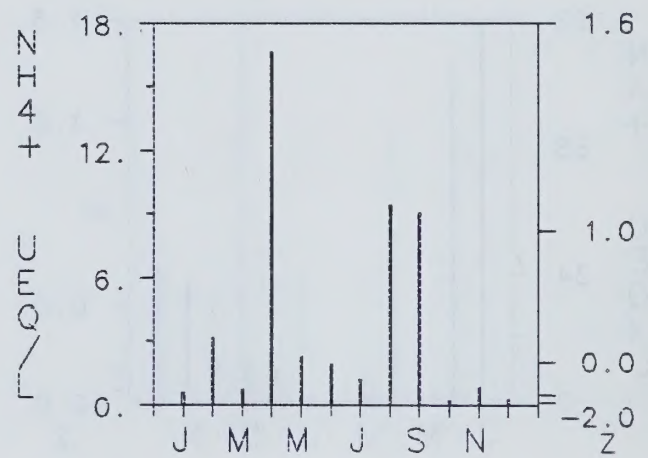
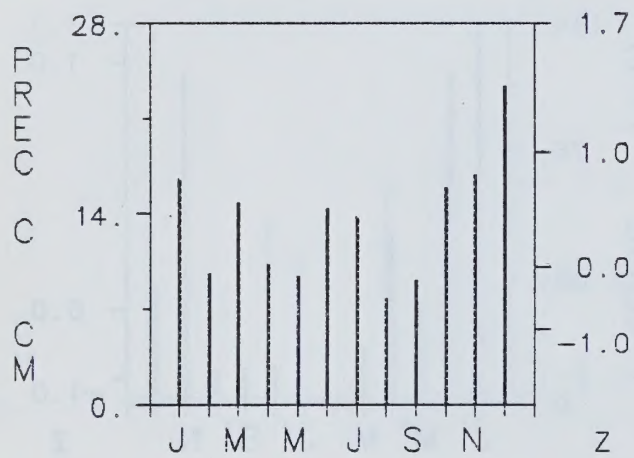
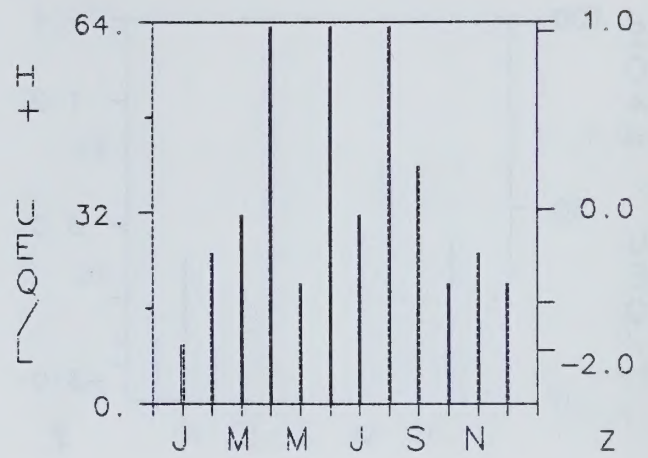
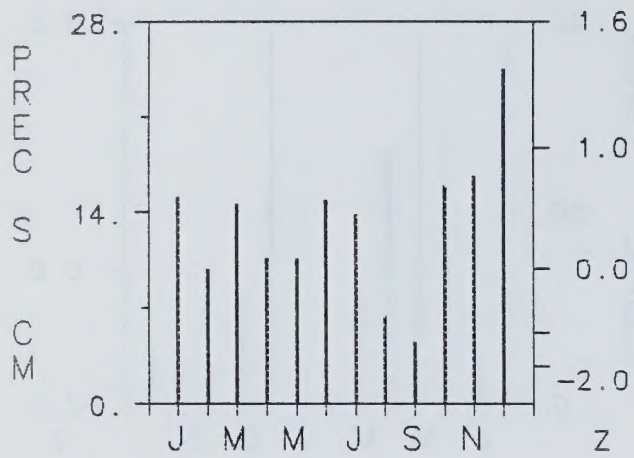
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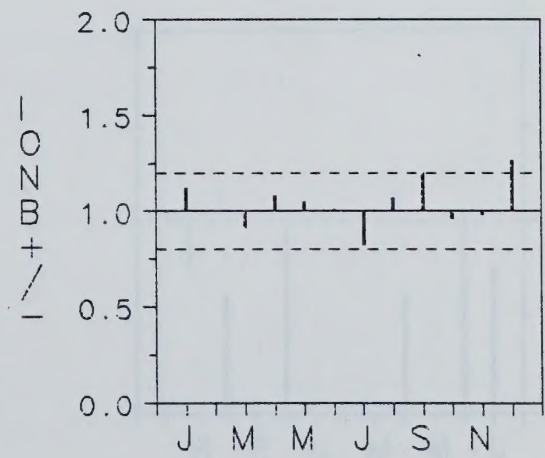
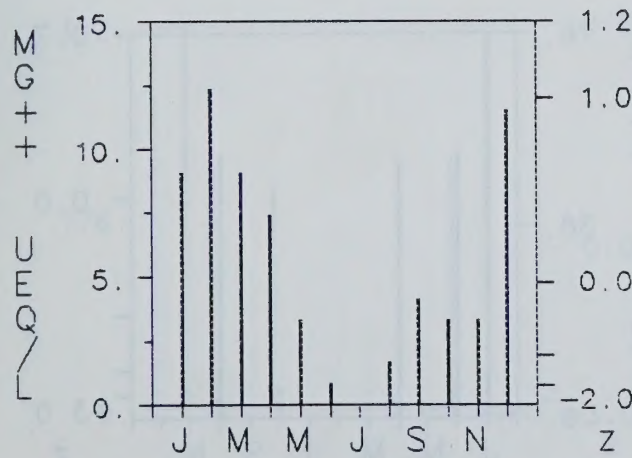
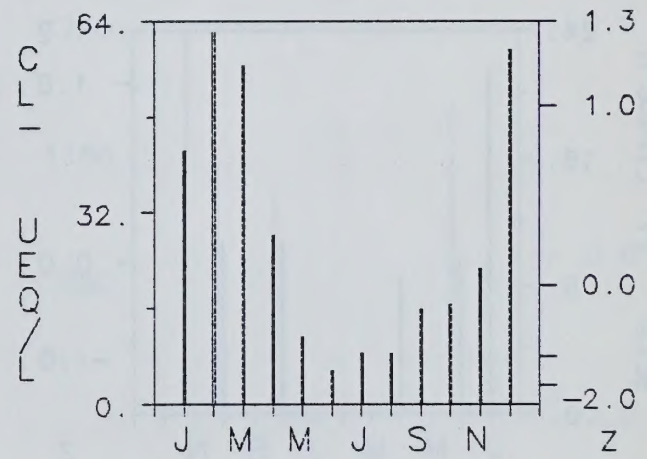
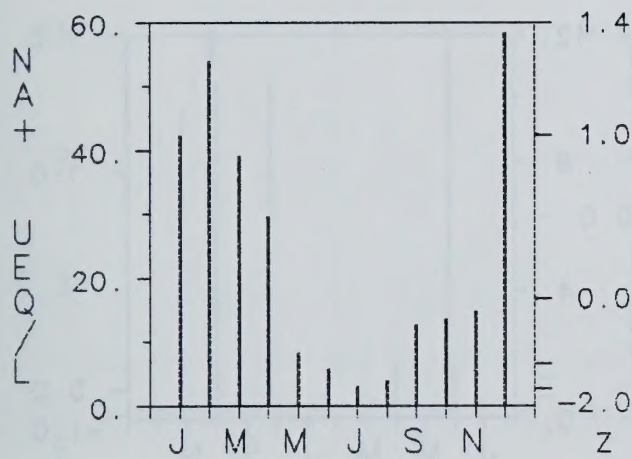
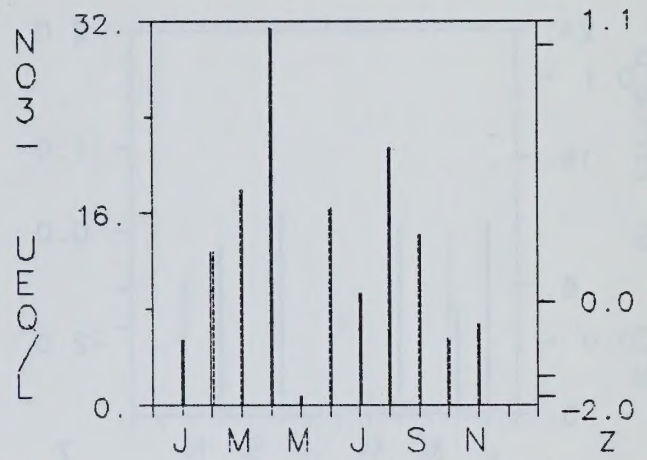
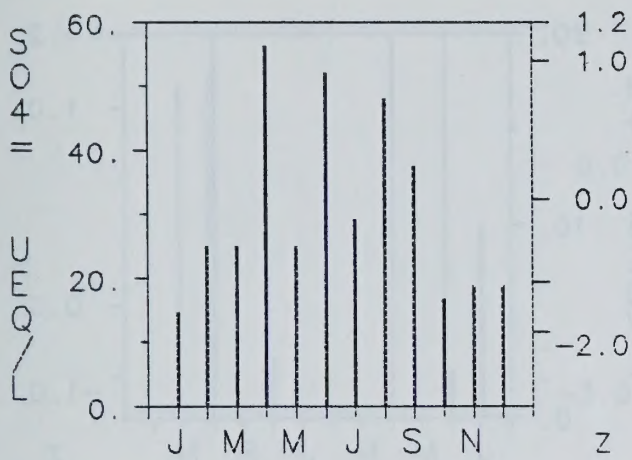




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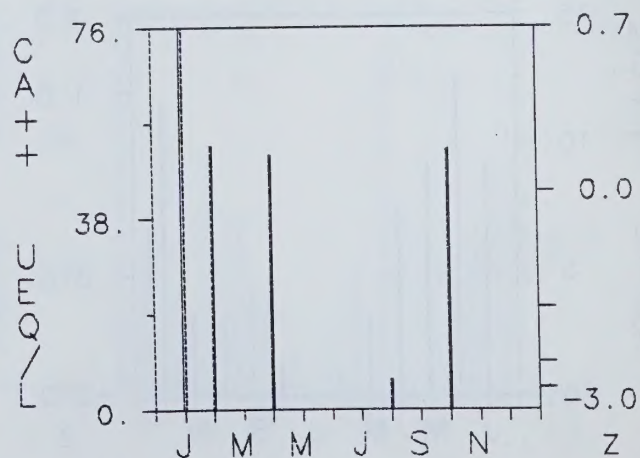
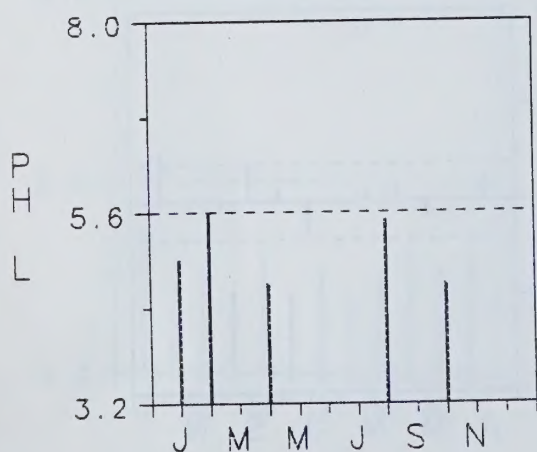
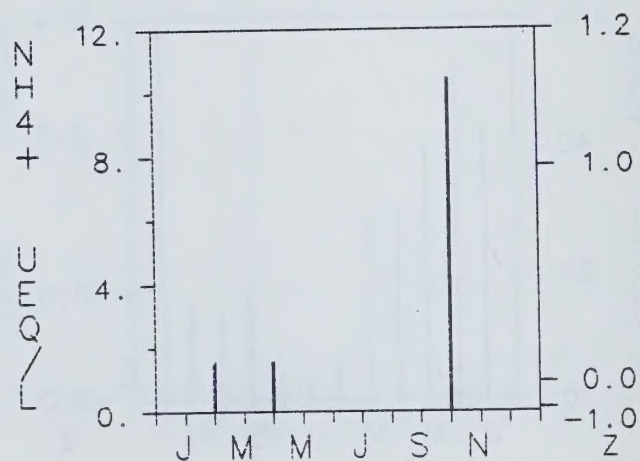
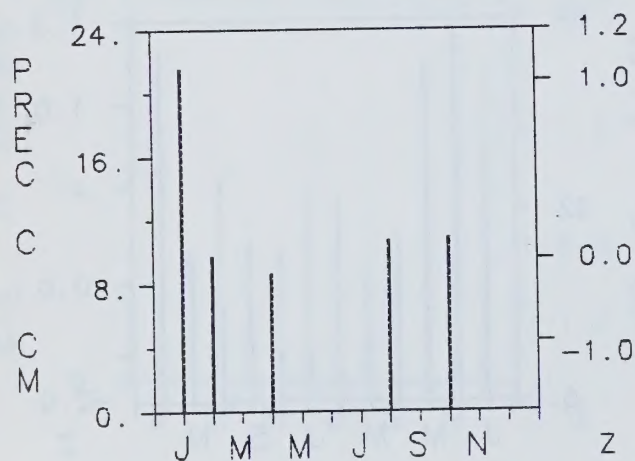
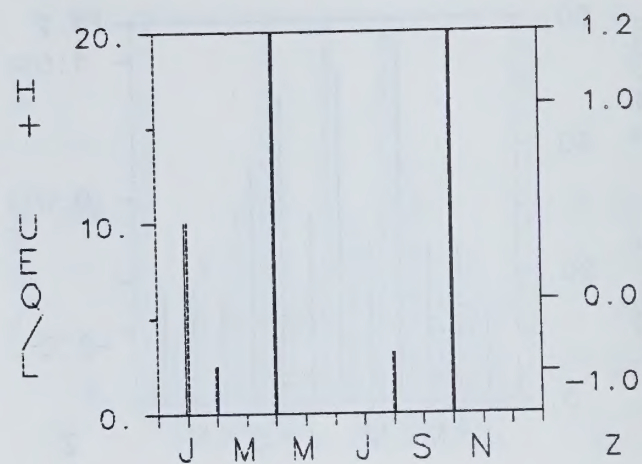
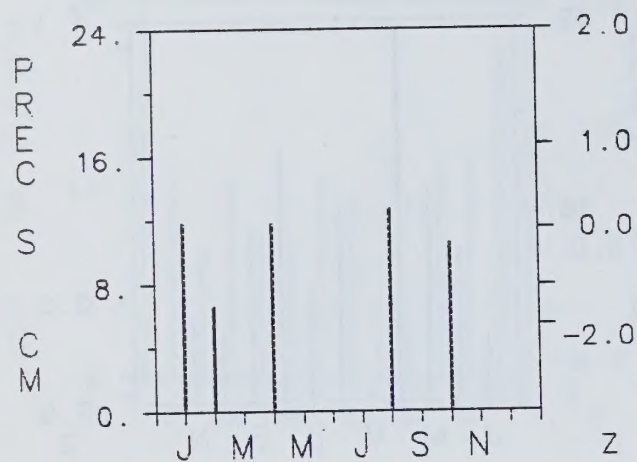
1981





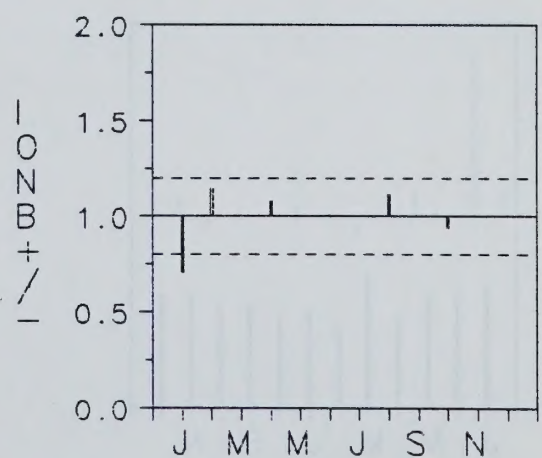
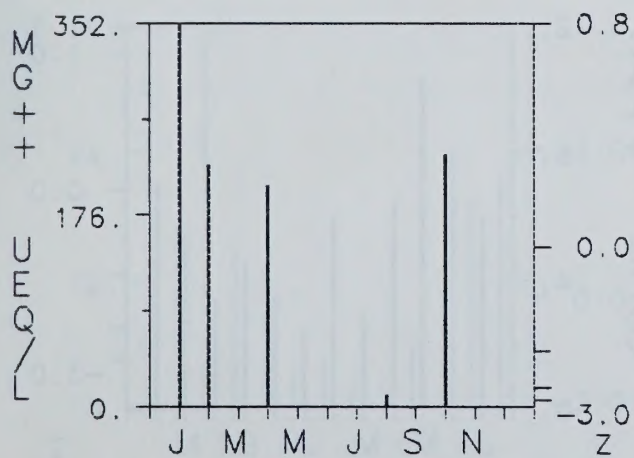
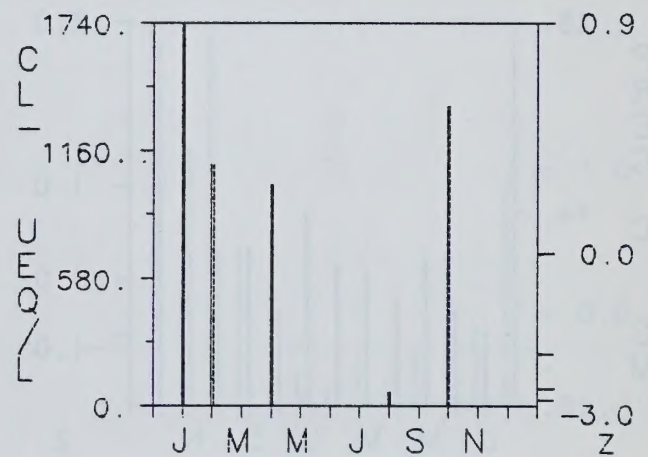
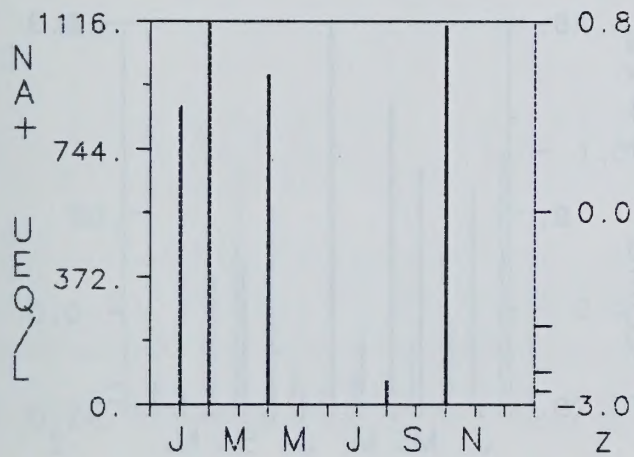
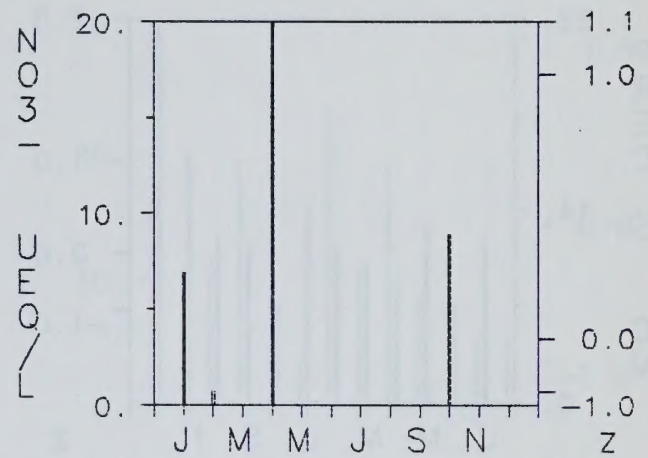
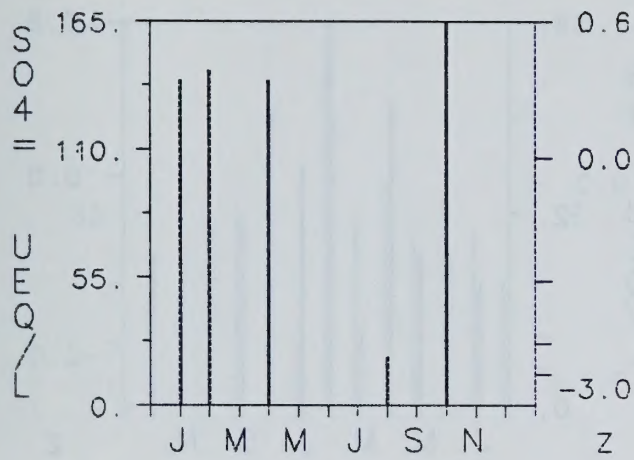
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1981



## SABLE ISLAND

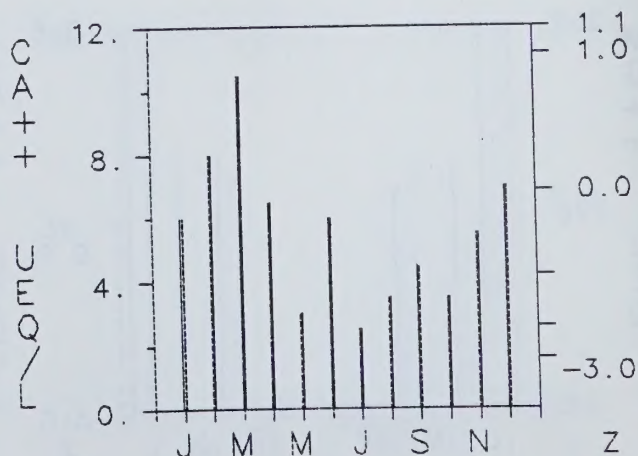
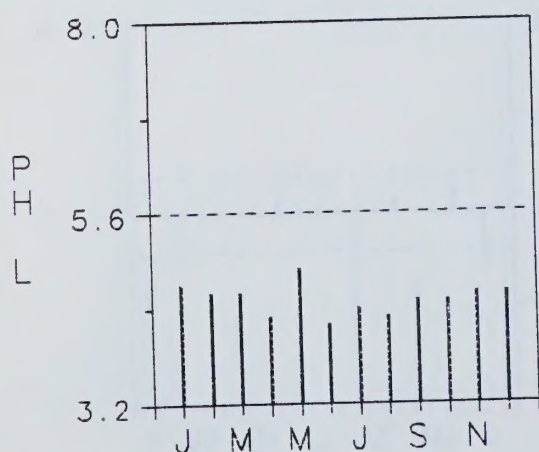
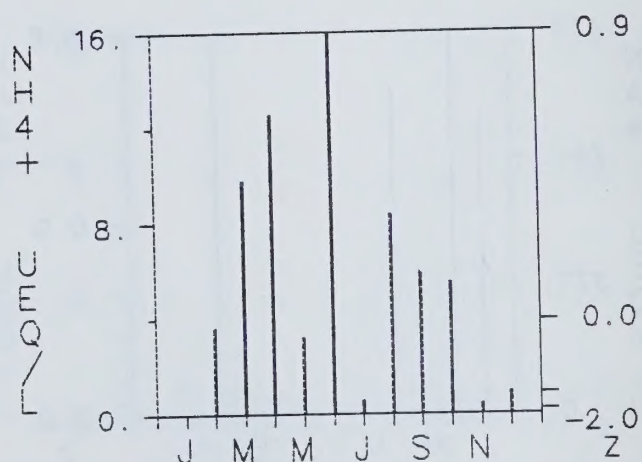
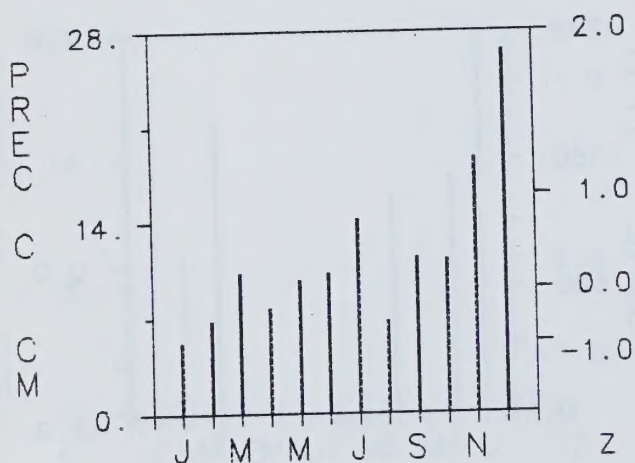
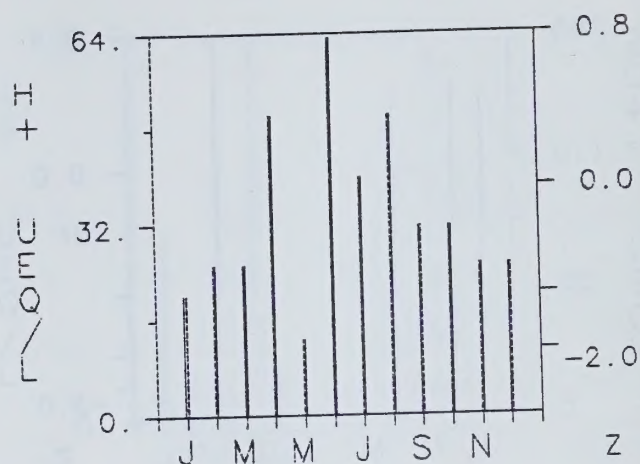
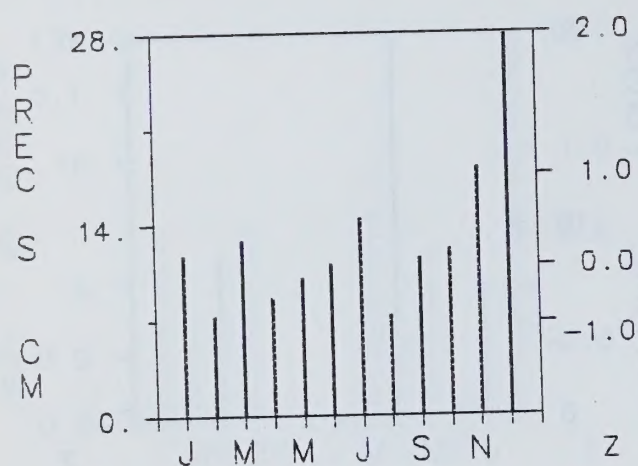
1981





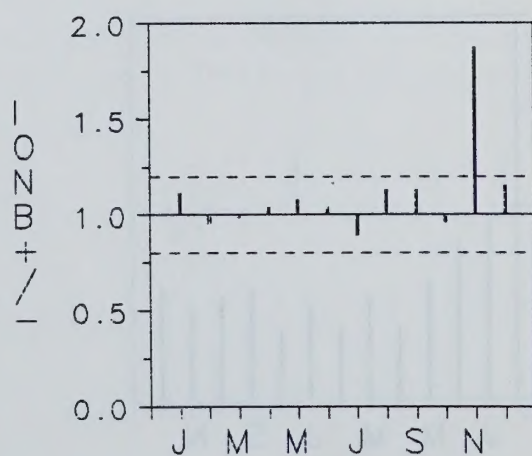
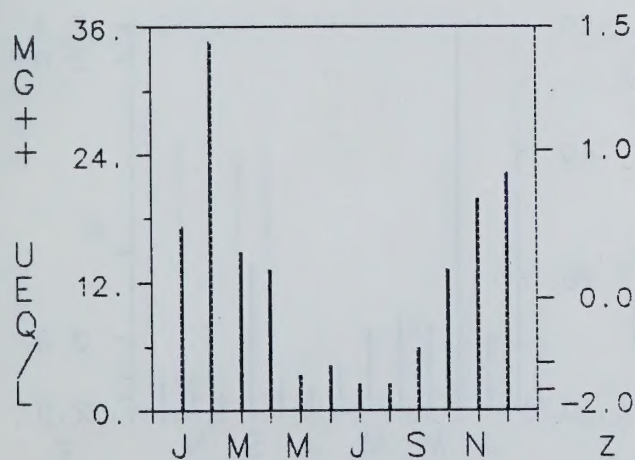
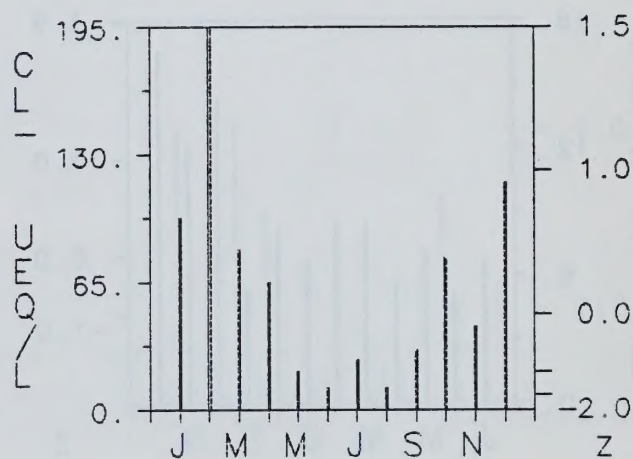
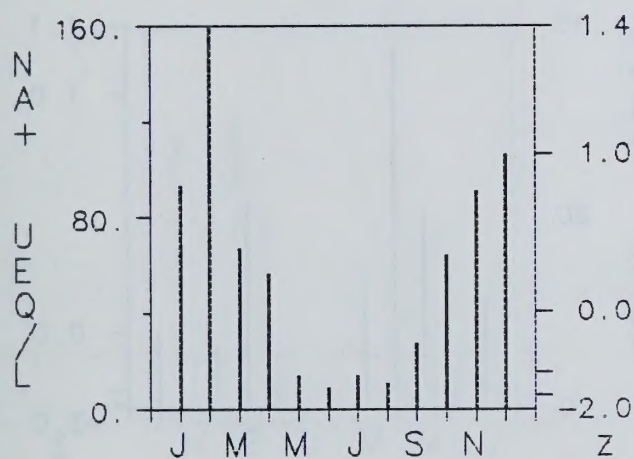
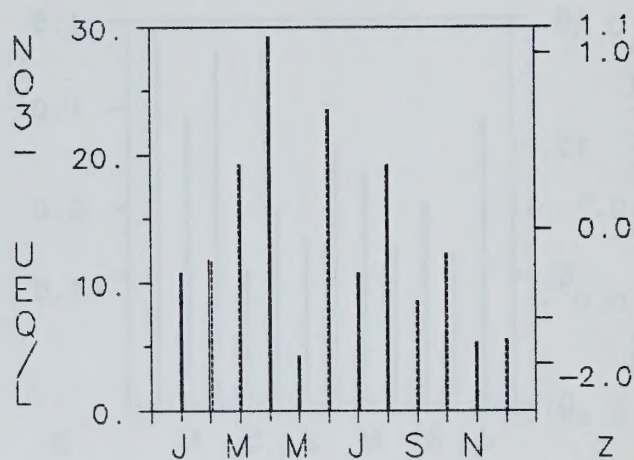
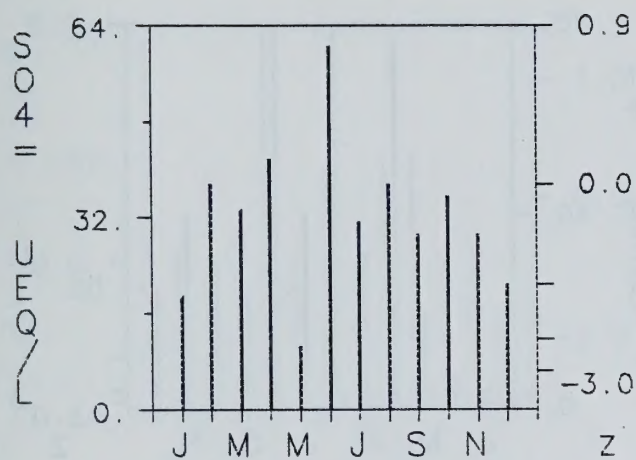
## SHELBURNE

1981



## SHELBURNE

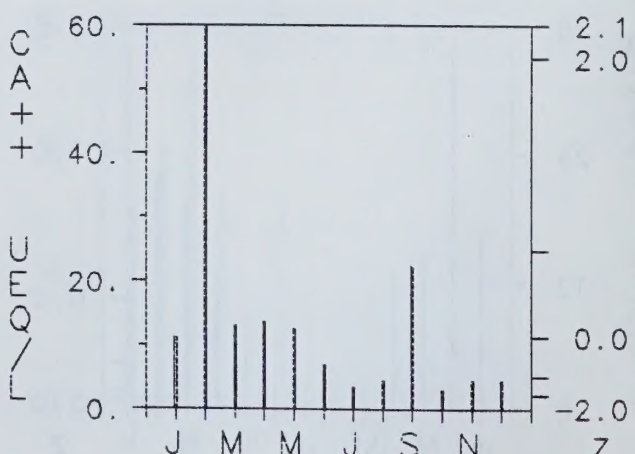
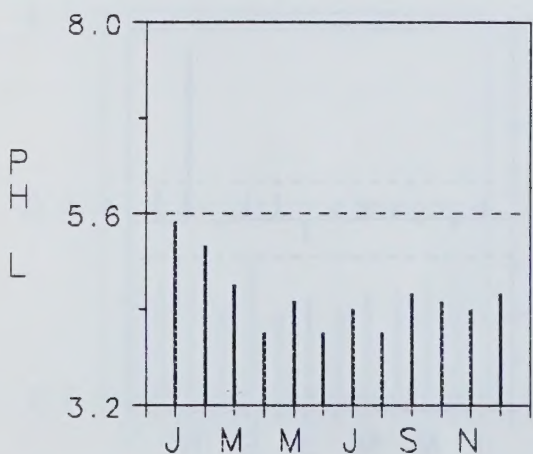
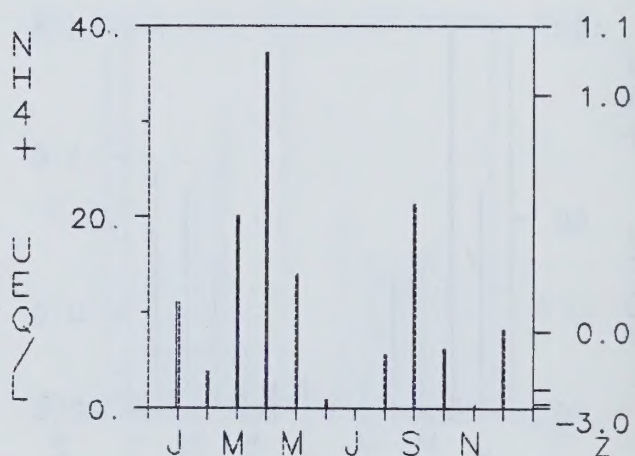
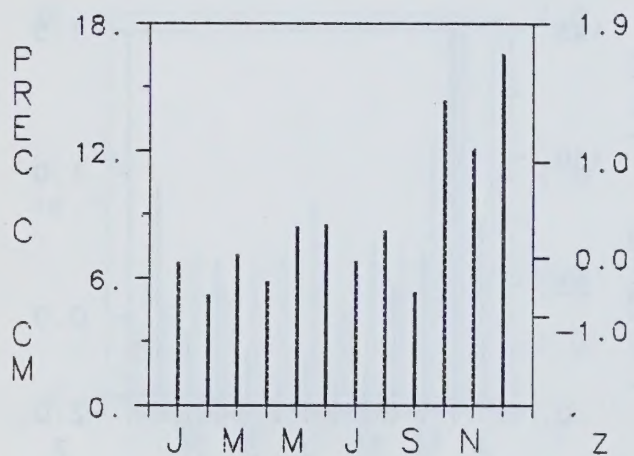
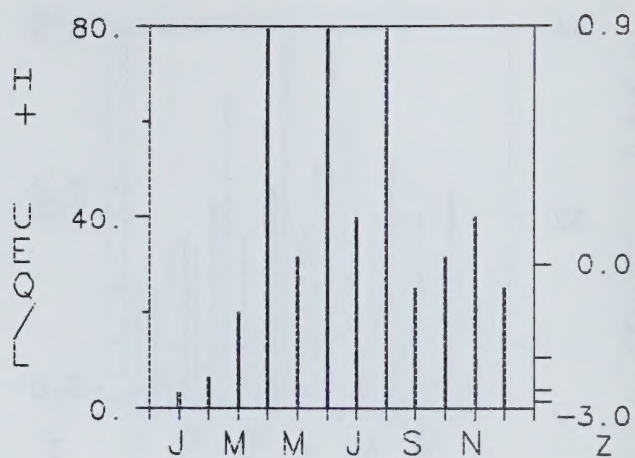
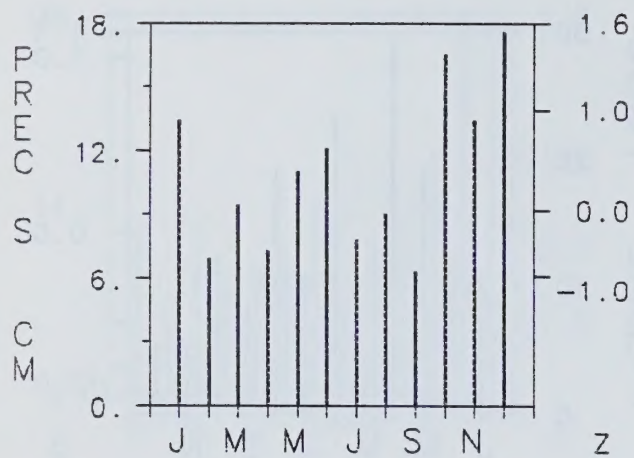
1981





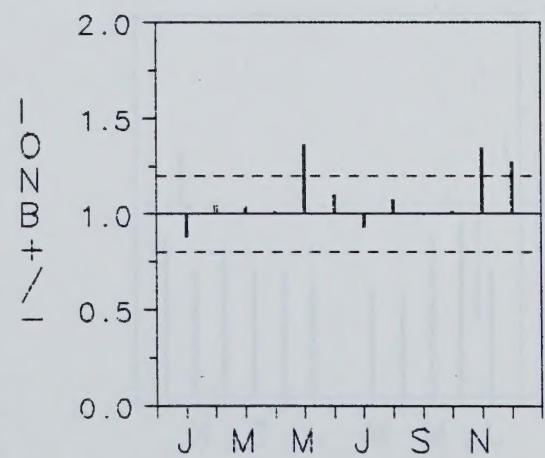
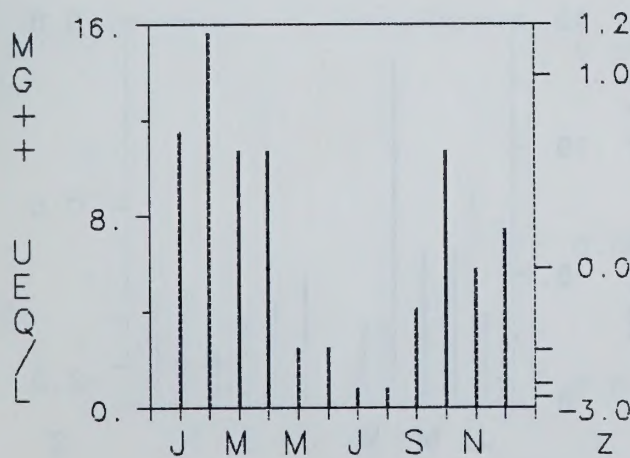
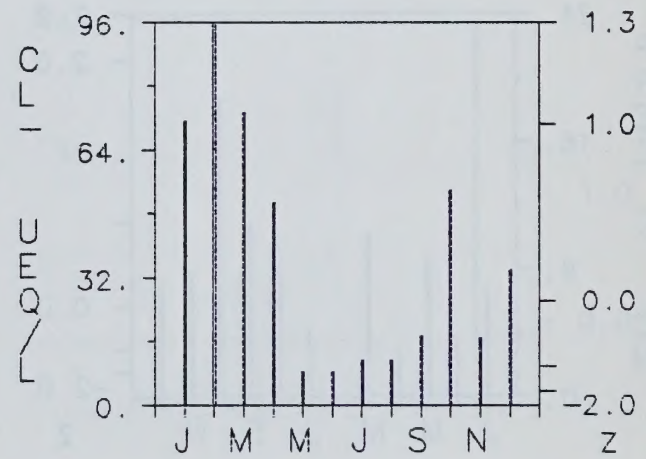
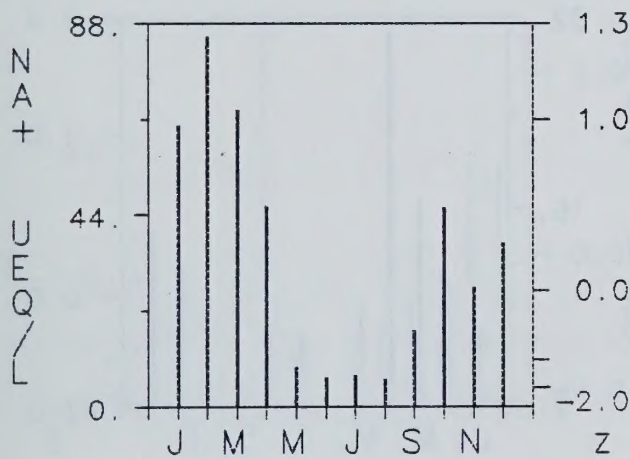
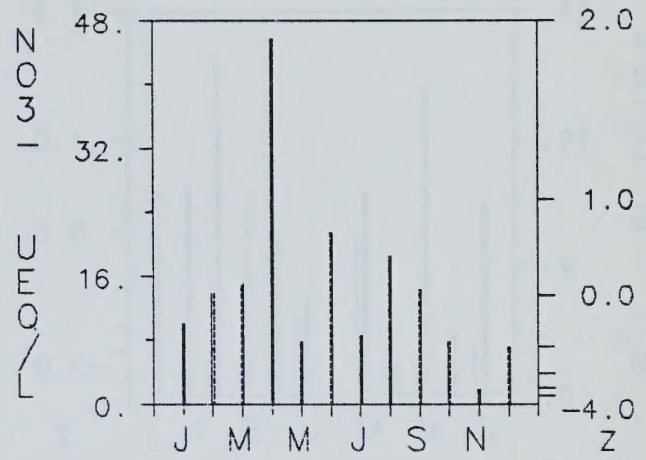
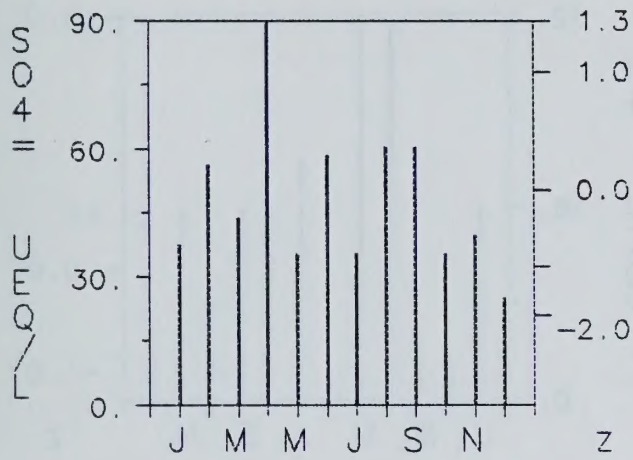
## TRURO

1981



## TRURO

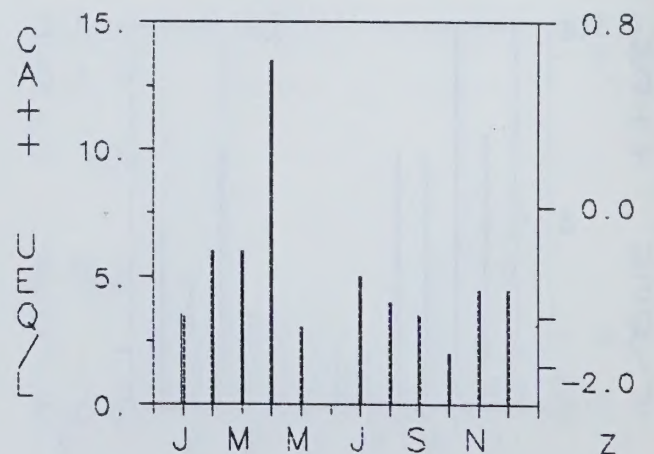
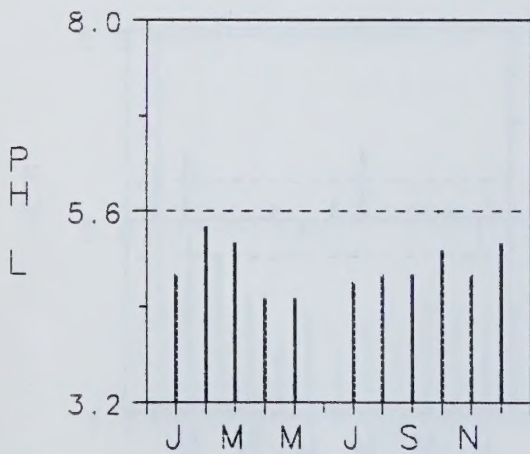
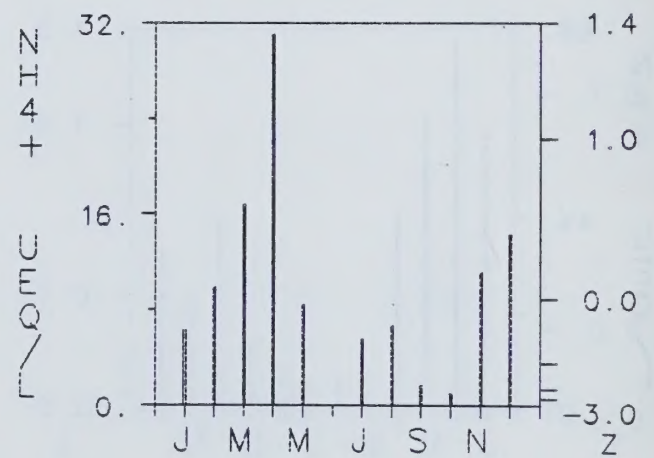
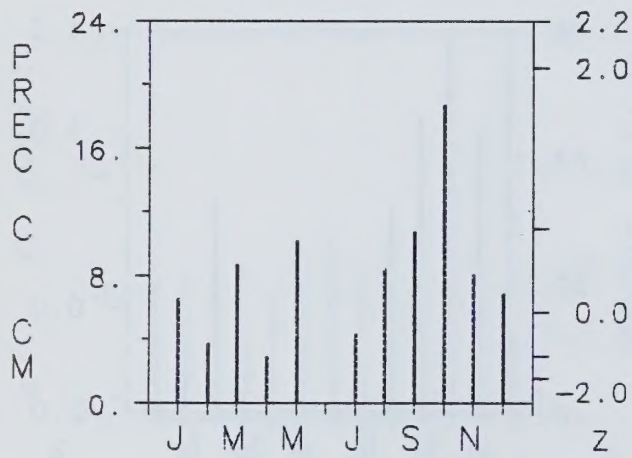
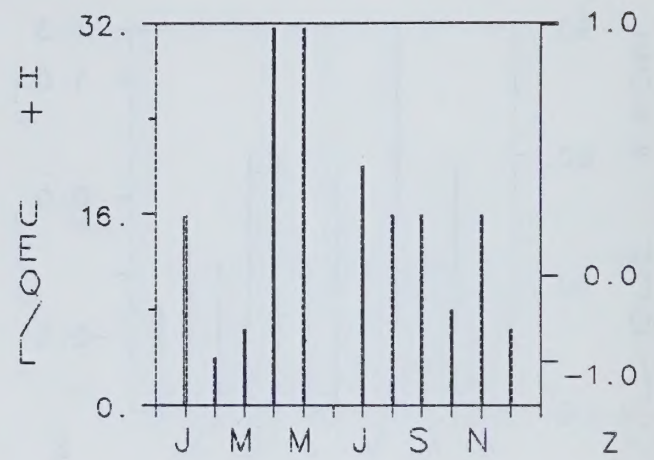
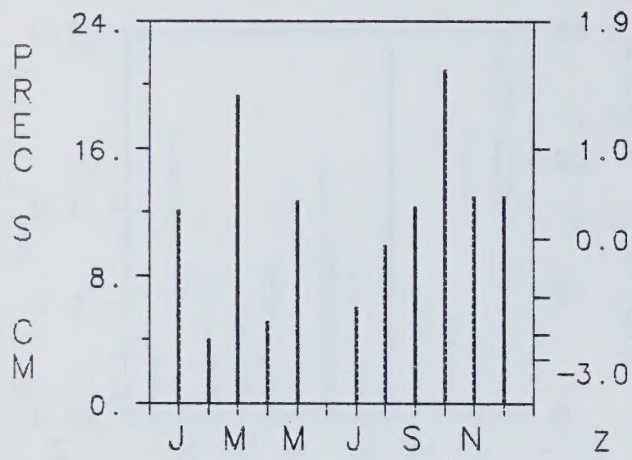
1981





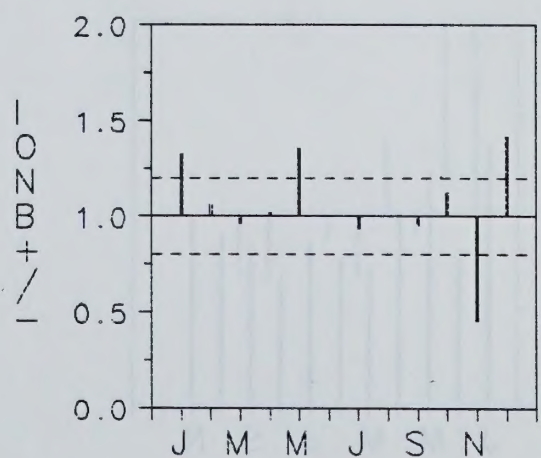
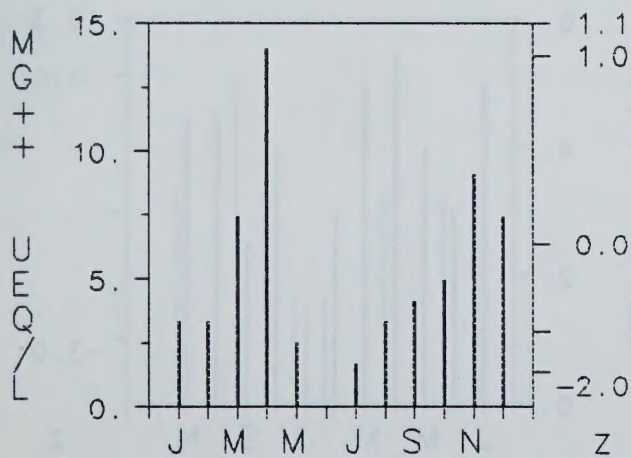
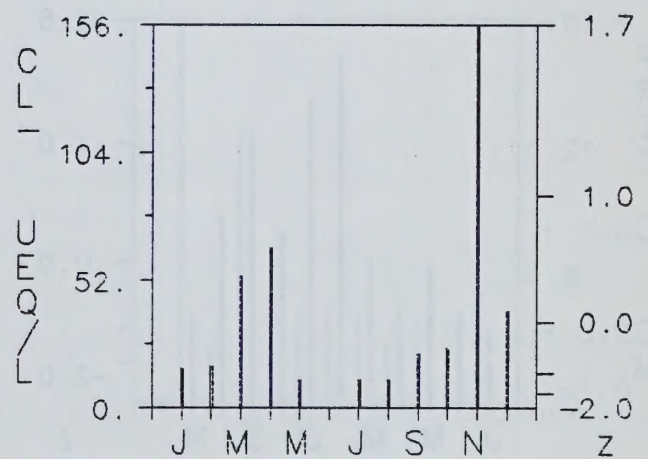
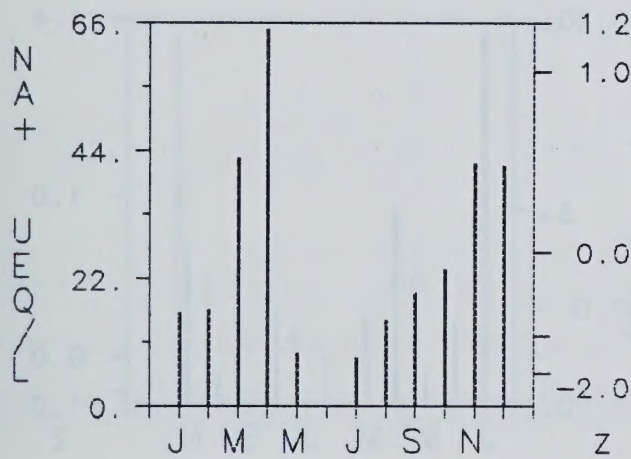
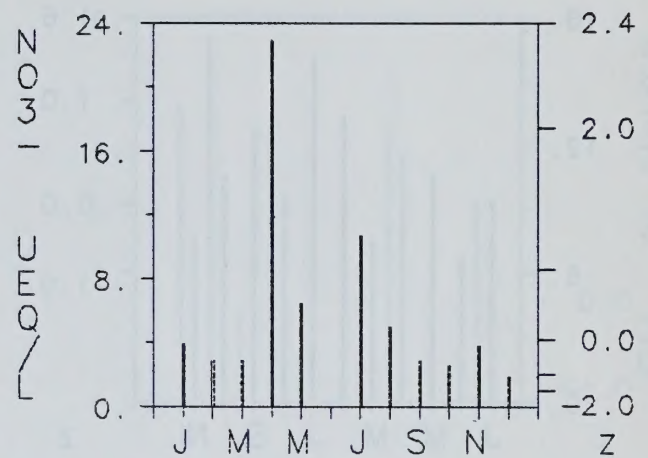
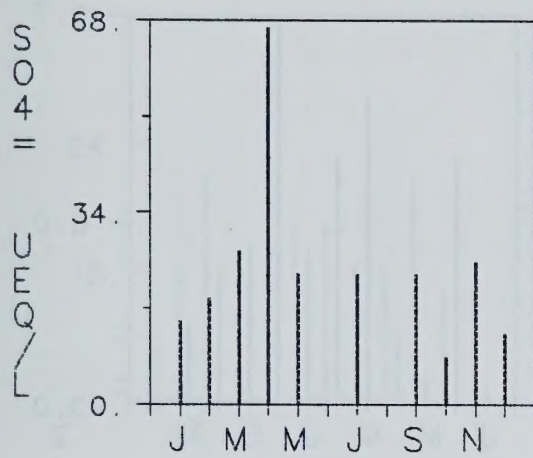
## GANDER

1981



## GANDER

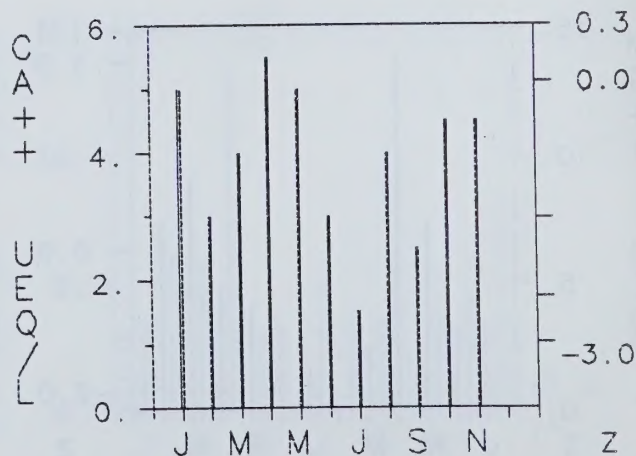
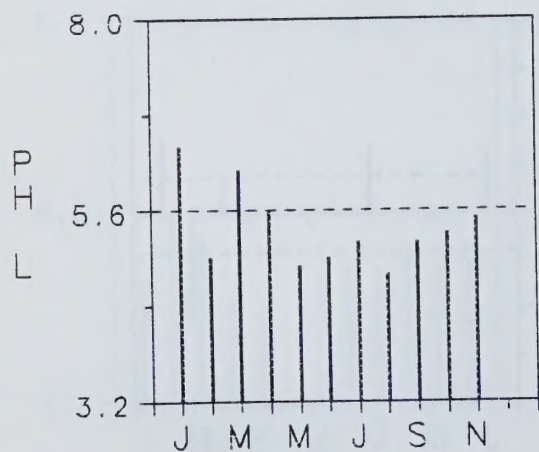
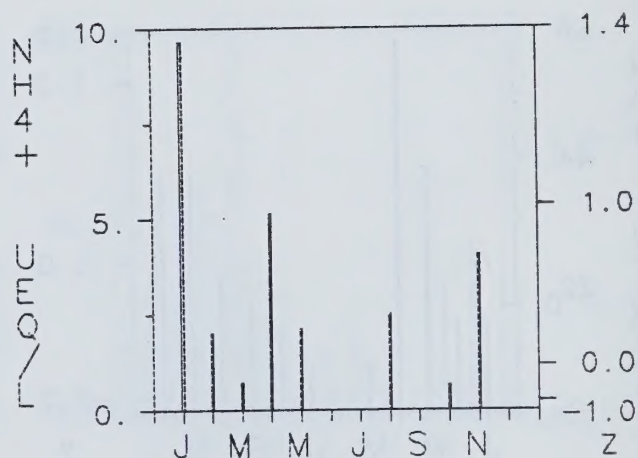
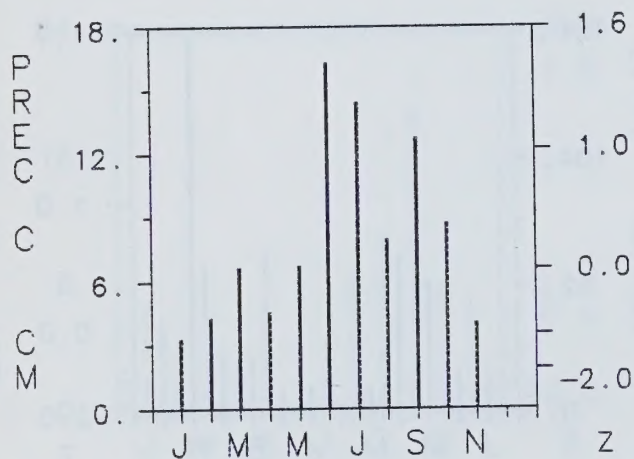
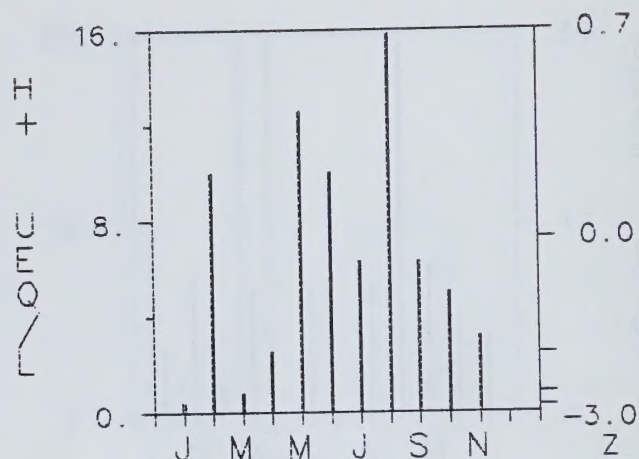
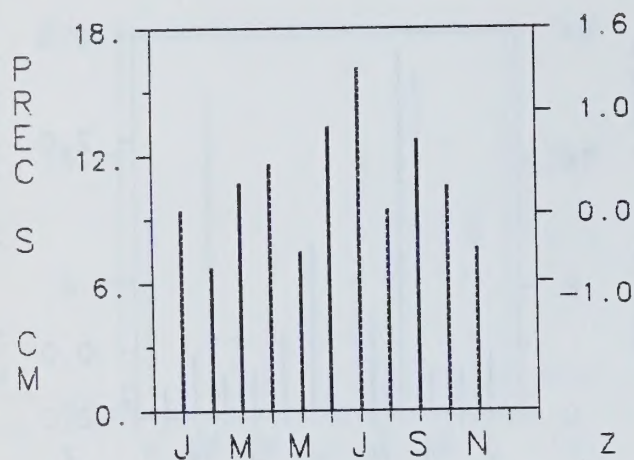
1981





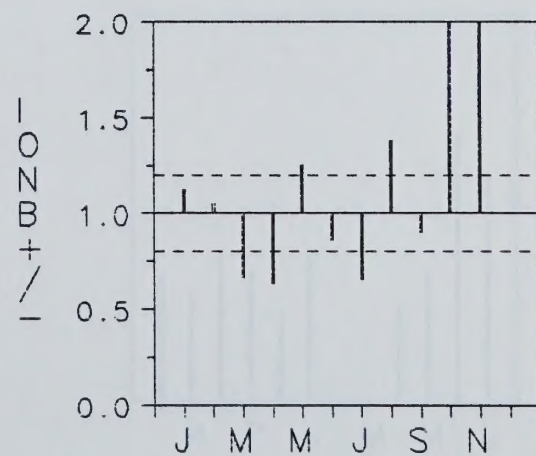
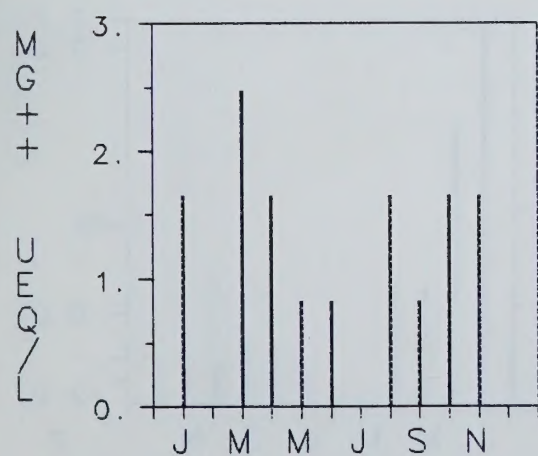
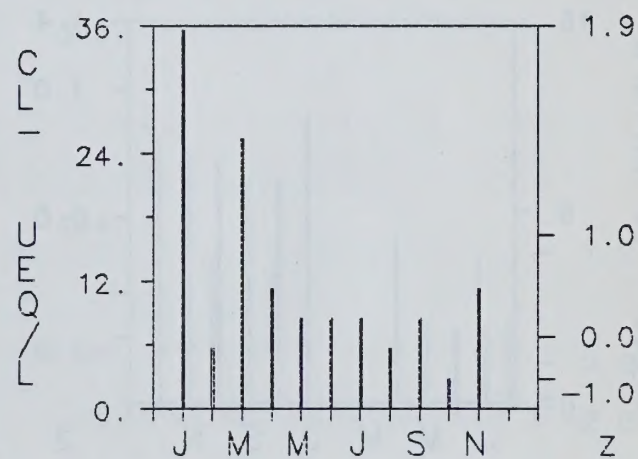
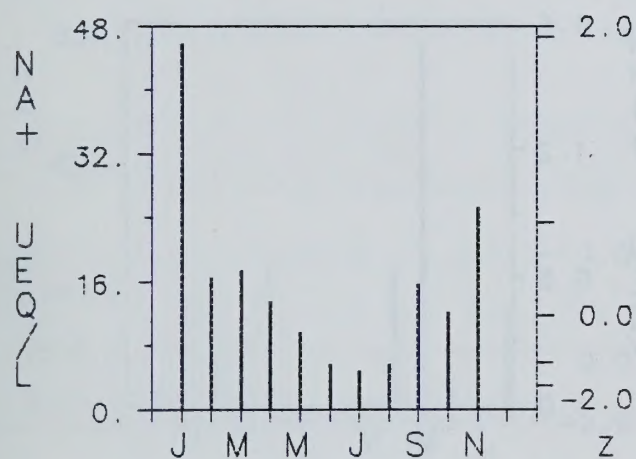
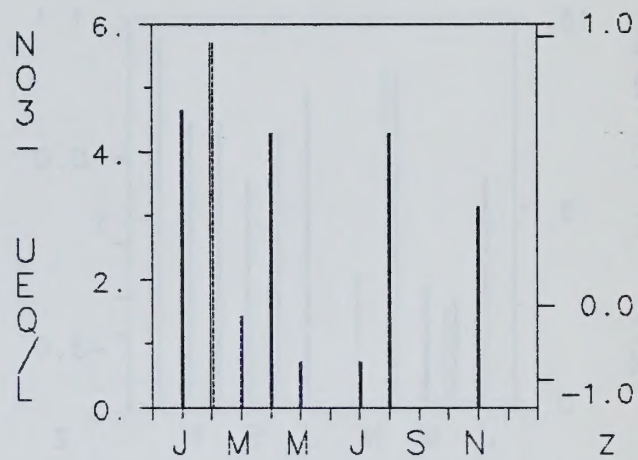
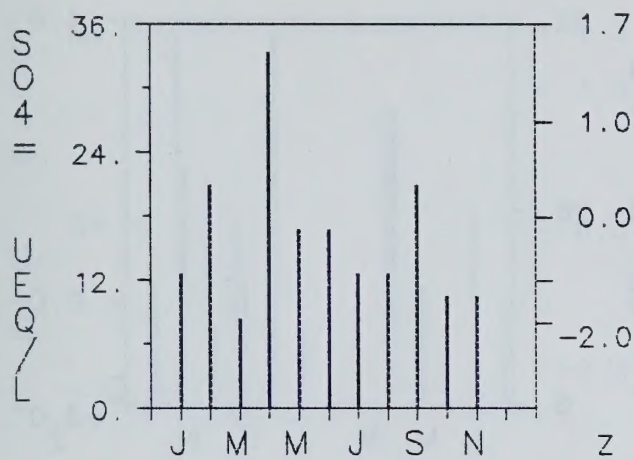
## GOOSE

1981



## GOOSE

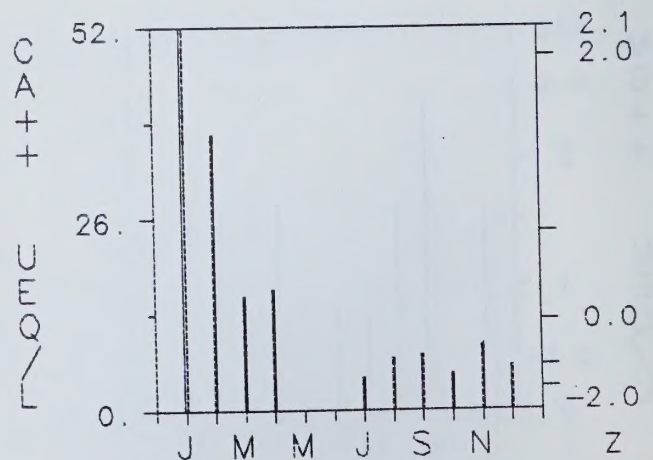
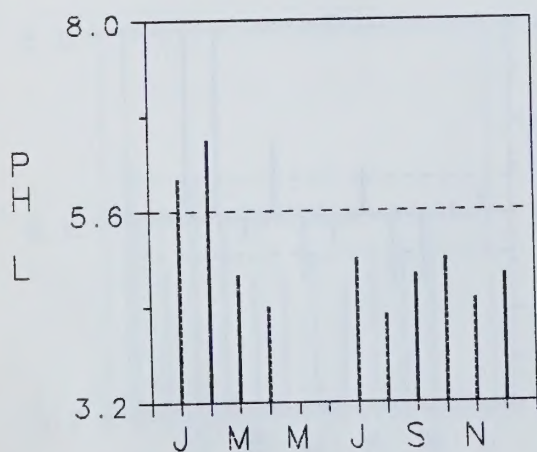
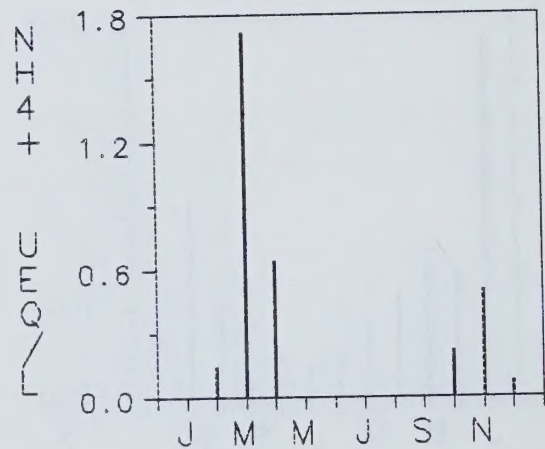
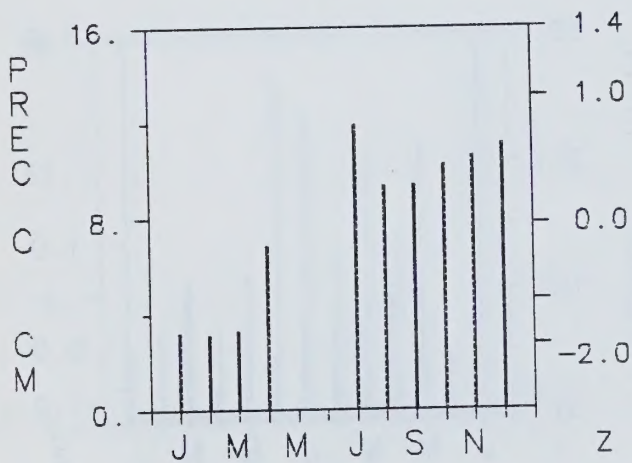
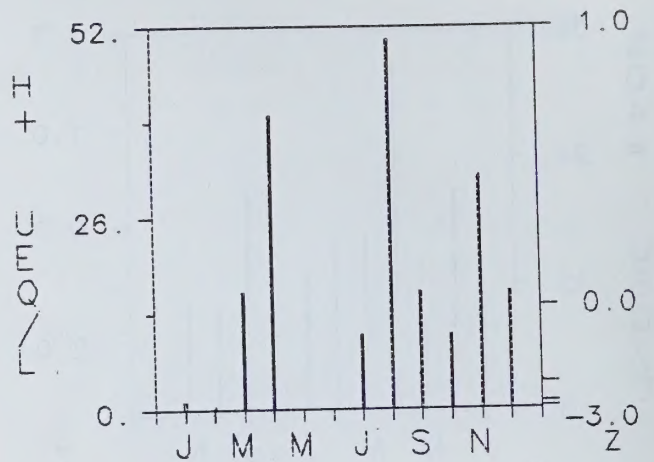
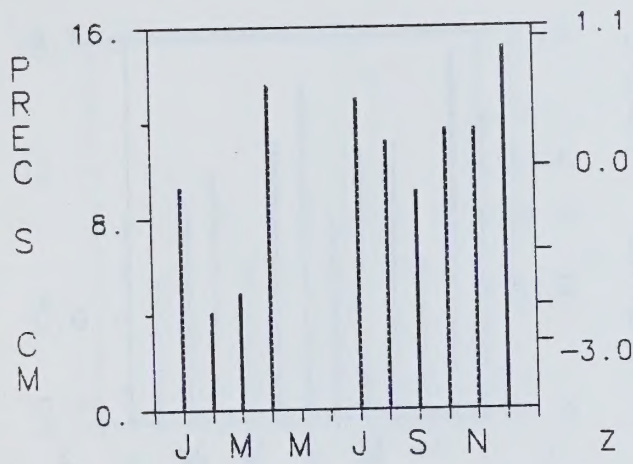
1981





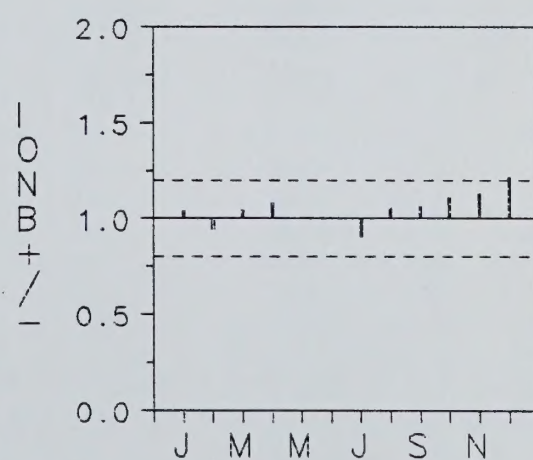
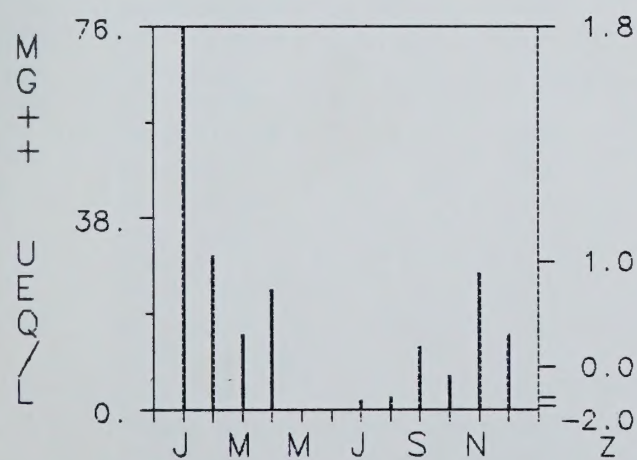
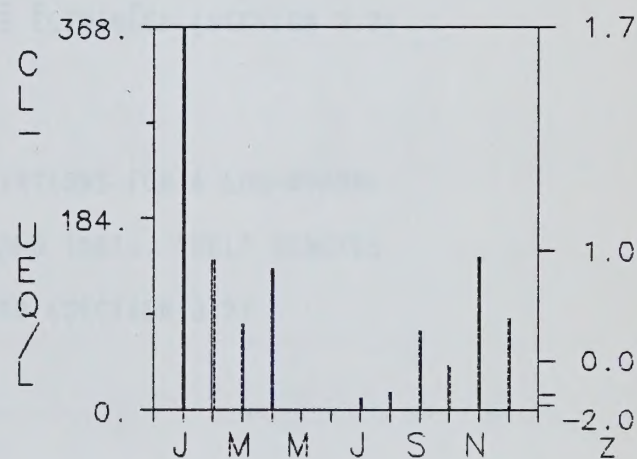
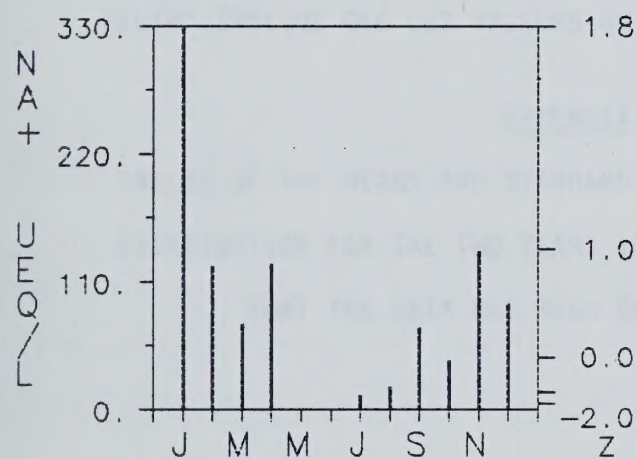
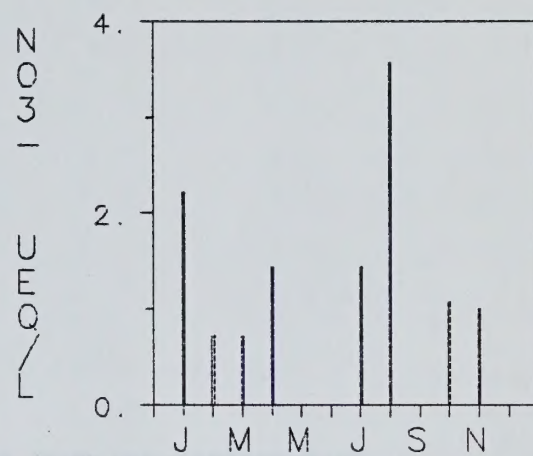
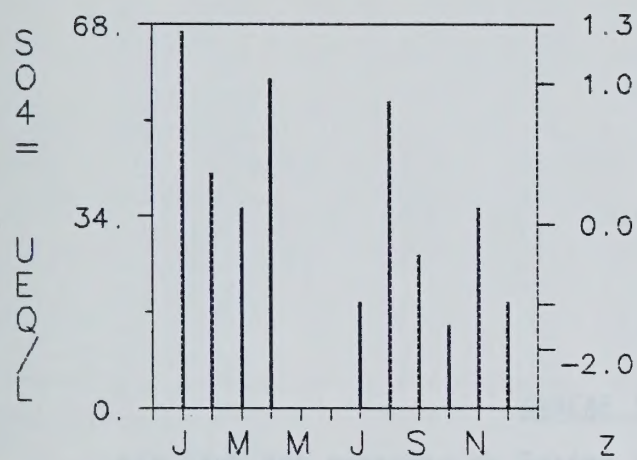
## STEPHENVILLE

1981



## STEPHENVILLE

1981







ANNEXE IV

TABLEAUX DES MOYENNES ET ÉCARTS TYPES POUR UNE DISTRIBUTION  
LOGARITHMIQUE NORMALE POUR LES DEUX ANNÉES 1980 ET 1981.  
"ELIM" INDIQUE QUE LES VALEURS ONT ÉTÉ ÉLIMINÉES (SECTION 3.3)

APPENDIX IV

TABLES OF THE MEANS AND STANDARD DEVIATIONS FOR A LOG-NORMAL  
DISTRIBUTION FOR THE TWO YEARS 1980 AND 1981. "DEL" DENOTES  
THAT THE DATA HAS BEEN DELETED (SECTION 3.3)





## LOG-NORMAL DISTRIBUTION MEANS (M) AND STANDARD DEVIATIONS (S)

MOYENNES (M) ET DÉVIATIONS STANDARDS (S)

POUR UNE DISTRIBUTION NORMALE LOGARITHMIQUE

1980-81

| STATION         | PREC S ( CM ) |       |       | PREC C ( CM ) |       |       |
|-----------------|---------------|-------|-------|---------------|-------|-------|
|                 | M             | S     | \$MO  | M             | S     | \$MO  |
| -----           | -----         | ----- | ----- | -----         | ----- | ----- |
| FORT RELIANCE   | 1.6           | 2.3   | ( 17) | 1.0           | 2.7   | ( 17) |
| HAY RIVER       | 2.2           | 2.2   | ( 17) | 0.8           | 3.5   | ( 17) |
| INUUVIK         | 1.8           | 2.1   | ( 21) | 1.0           | 2.4   | ( 21) |
| MOULD BAY       | 0.6           | 5.8   | ( 12) | 0.7           | 2.2   | ( 12) |
| WHITEHORSE      | 2.1           | 2.0   | ( 17) | 0.7           | 2.9   | ( 17) |
| FORT NELSON     | 2.5           | 2.3   | ( 17) | 1.2           | 3.1   | ( 17) |
| FORT ST JOHN    | 2.5           | 2.4   | ( 23) | 1.4           | 3.9   | ( 23) |
| KELOWNA         | 3.1           | 1.7   | ( 23) | 2.2           | 1.8   | ( 23) |
| FORT HARDY      | 13.1          | 2.0   | ( 23) | 10.6          | 2.3   | ( 23) |
| PRINCE GEORGE   | 4.4           | 1.9   | ( 23) | 2.9           | 2.0   | ( 23) |
| REVELSTOKE      | 7.4           | 1.7   | ( 23) | 6.3           | 1.8   | ( 22) |
| TERRACE         | 7.9           | 2.3   | ( 24) | 5.9           | 2.8   | ( 24) |
| VANCOUVER       | 9.6           | 2.0   | ( 24) | 6.2           | 2.3   | ( 24) |
| CORONATION      | 3.0           | 2.2   | ( 15) | 1.2           | 3.4   | ( 15) |
| EDSON           | 2.7           | 3.5   | ( 23) | 1.8           | 3.9   | ( 23) |
| FORT MCMURRAY   | 2.6           | 2.2   | ( 14) | 1.5           | 2.4   | ( 14) |
| LETHBRIDGE      | 2.6           | 2.5   | ( 21) | 1.2           | 3.3   | ( 21) |
| ROCKY MTN HOUSE | 3.1           | 3.3   | ( 21) | 1.6           | 5.2   | ( 21) |
| CREE LAKE       | 1.9           | 2.2   | ( 23) | 1.1           | 2.5   | ( 23) |
| KINDERSLEY      | 2.2           | 1.8   | ( 16) | 1.3           | 2.8   | ( 16) |
| WYNYARD         | 3.2           | 2.1   | ( 18) | 1.7           | 3.0   | ( 18) |
| BISSETT         | 3.1           | 2.4   | ( 23) | 2.3           | 2.8   | ( 23) |
| CHURCHILL       | 4.8           | 1.5   | ( 8)  | 2.0           | 3.0   | ( 8)  |
| DAUPHIN         | 3.8           | 2.3   | ( 16) | 2.0           | 3.5   | ( 16) |
| THE PAS         | 2.6           | 2.5   | ( 23) | 1.8           | 2.8   | ( 23) |
| ATIKOKAN        | 4.6           | 2.1   | ( 21) | 3.6           | 2.7   | ( 21) |
| DORSET          | 8.3           | 1.6   | ( 23) | 6.1           | 1.9   | ( 23) |
| ELA             | 3.2           | 2.8   | ( 24) | 2.5           | 2.8   | ( 24) |
| HARROW          | 6.5           | 2.2   | ( 24) | 4.8           | 2.5   | ( 24) |
| KAPUSKASING     | 5.9           | 1.6   | ( 14) | 2.6           | 2.3   | ( 14) |
| KINGSTON        | 7.1           | 1.8   | ( 23) | 5.0           | 2.3   | ( 23) |
| MOOSONEE        | 4.0           | 2.1   | ( 22) | 2.3           | 2.8   | ( 22) |
| MOUNT FOREST    | 7.5           | 1.5   | ( 22) | 5.5           | 1.8   | ( 22) |
| PETERBOROUGH    | 6.0           | 1.8   | ( 21) | 4.1           | 2.7   | ( 21) |
| PICKLE LAKE     | 3.2           | 1.8   | ( 17) | 2.1           | 2.3   | ( 16) |
| SIMCOE          | 6.6           | 1.6   | ( 23) | 5.3           | 2.0   | ( 23) |
| TROUT LAKE      | 3.7           | 2.3   | ( 17) | 1.2           | 4.8   | ( 17) |
| CHIBOUGAMAU     | 6.7           | 1.7   | ( 24) | 3.6           | 2.7   | ( 24) |
| FORT CHIMO      | 3.9           | 1.6   | ( 21) | 1.6           | 2.1   | ( 21) |
| MANIWAKI        | 7.3           | 1.7   | ( 23) | 5.1           | 2.1   | ( 23) |
| NITCHEQUON      | 6.7           | 1.7   | ( 21) | 3.9           | 2.2   | ( 21) |
| QUEBEC CITY     | 10.0          | 1.5   | ( 20) | 7.2           | 2.0   | ( 20) |
| ST HUBERT       | 6.8           | 3.9   | ( 22) | 5.0           | 2.3   | ( 22) |
| SEPT ISLES      | 9.9           | 1.7   | ( 23) | 6.6           | 2.6   | ( 23) |
| ACADIA FES      | 10.7          | 1.6   | ( 24) | 9.4           | 1.8   | ( 24) |
| CHARLO          | 9.3           | 1.7   | ( 24) | 5.5           | 2.3   | ( 24) |
| SAINT JOHN      | 10.2          | 1.8   | ( 22) | 8.7           | 1.8   | ( 22) |
| KEJIMKUIK       | 9.9           | 1.9   | ( 22) | 10.1          | 1.8   | ( 23) |
| SABLE ISLAND    | 11.5          | 1.5   | ( 9)  | 11.9          | 1.4   | ( 9)  |
| SHELBURNE       | 10.9          | 1.6   | ( 21) | 9.1           | 1.8   | ( 23) |
| TRURO           | 9.2           | 1.5   | ( 24) | 6.9           | 1.7   | ( 24) |
| GANDER          | 10.3          | 1.5   | ( 20) | 5.7           | 1.9   | ( 20) |
| GOOSE           | 9.2           | 1.5   | ( 22) | 6.6           | 1.9   | ( 22) |
| STEPHENVILLE    | 10.1          | 1.5   | ( 16) | 7.8           | 1.7   | ( 16) |



## LOG-NORMAL DISTRIBUTION MEANS (M) AND STANDARD DEVIATIONS (S)

MOYENNES (M) ET DÉVIATIONS STANDARDS (S)

POUR UNE DISTRIBUTION NORMALE LOGARITHMIQUE

1980-81

| STATION         | H+ ( UEQ/L ) |       |       | NH4+ ( UEQ/L ) |       |       |
|-----------------|--------------|-------|-------|----------------|-------|-------|
|                 | M            | S     | #MO   | M              | S     | #MO   |
| -----           | -----        | ----- | ----- | -----          | ----- | ----- |
| FORT RELIANCE   | 10.0         | 2.6   | ( 17) | DEL/ELIM       |       |       |
| HAY RIVER       | 0.3          | 2.8   | ( 17) | 4.0            | 11.0  | ( 17) |
| INUUVIK         | 0.1          | 2.7   | ( 21) | 5.0            | 5.8   | ( 21) |
| MOULD BAY       | 1.3          | 6.3   | ( 12) | 6.2            | 4.2   | ( 12) |
| WHITEHORSE      | 1.3          | 4.7   | ( 16) | 2.6            | 7.3   | ( 15) |
| FORT NELSON     | 0.5          | 3.0   | ( 17) | 1.7            | 11.1  | ( 17) |
| FORT ST JOHN    | 1.9          | 4.2   | ( 22) | 1.2            | 7.0   | ( 21) |
| KELOWNA         | 2.9          | 3.9   | ( 23) | 4.5            | 5.9   | ( 23) |
| PORT HARDY      | 7.8          | 2.9   | ( 23) | 1.0            | 6.0   | ( 23) |
| PRINCE GEORGE   | 0.9          | 2.8   | ( 23) | 15.0           | 3.1   | ( 23) |
| REVELSTOKE      | 3.1          | 2.0   | ( 23) | 2.6            | 3.8   | ( 22) |
| TERRACE         | 7.2          | 3.0   | ( 24) | 0.4            | 3.9   | ( 24) |
| VANCOUVER       | 12.8         | 3.8   | ( 24) | 10.9           | 3.4   | ( 24) |
| CORONATION      | 1.5          | 3.6   | ( 15) | 7.3            | 7.8   | ( 15) |
| EDSON           | 0.8          | 6.0   | ( 22) | 7.7            | 3.6   | ( 23) |
| FORT MCMURRAY   | 0.5          | 3.5   | ( 14) | 1.4            | 6.6   | ( 14) |
| LETHBRIDGE      | 0.2          | 4.9   | ( 21) | 9.4            | 4.2   | ( 21) |
| ROCKY MTN HOUSE | 0.9          | 4.1   | ( 21) | 3.3            | 7.5   | ( 19) |
| CREE LAKE       | 2.6          | 4.8   | ( 23) | 2.5            | 10.9  | ( 22) |
| KINDERSLEY      | 0.1          | 3.1   | ( 16) | 1.3            | 5.1   | ( 16) |
| WYNYARD         | 0.1          | 4.1   | ( 17) | 1.2            | 5.2   | ( 18) |
| BISSETT         | 5.3          | 4.9   | ( 23) | 0.8            | 7.6   | ( 23) |
| CHURCHILL       | 0.1          | 2.6   | ( 8)  | 2.3            | 7.2   | ( 8)  |
| DAUPHIN         | 0.3          | 2.8   | ( 16) | 5.2            | 6.5   | ( 16) |
| THE PAS         | 0.4          | 2.6   | ( 23) | 8.6            | 2.5   | ( 23) |
| ATIKOKAN        | 14.5         | 2.0   | ( 21) | 15.7           | 2.6   | ( 21) |
| DORSET          | 62.5         | 1.5   | ( 23) | 13.0           | 6.7   | ( 23) |
| ELA             | 5.8          | 4.8   | ( 24) | 11.4           | 3.3   | ( 24) |
| HARROW          | 15.5         | 8.5   | ( 24) | 17.3           | 3.9   | ( 24) |
| KAPUSKASING     | 5.6          | 6.2   | ( 14) | 6.7            | 9.7   | ( 14) |
| KINGSTON        | 50.6         | 2.6   | ( 23) | 17.0           | 4.4   | ( 23) |
| MOOSONEE        | 3.0          | 4.8   | ( 22) | 3.3            | 7.3   | ( 21) |
| MOUNT FOREST    | 11.1         | 5.0   | ( 22) | 42.1           | 1.4   | ( 22) |
| PETERBOROUGH    | 20.2         | 6.9   | ( 21) | 18.1           | 4.0   | ( 21) |
| PICKLE LAKE     | 2.2          | 5.4   | ( 17) | 3.1            | 7.9   | ( 17) |
| SIMCOE          | 65.7         | 2.4   | ( 23) | 22.4           | 1.8   | ( 23) |
| TROUT LAKE      | 0.3          | 2.9   | ( 16) | 6.0            | 4.2   | ( 16) |
| CHIBOUGAMAU     | 26.9         | 2.4   | ( 24) | 8.8            | 1.9   | ( 24) |
| FORT CHIMO      | 2.5          | 4.2   | ( 21) | 2.6            | 5.7   | ( 21) |
| MANIWAKI        | 51.1         | 1.5   | ( 23) | 22.6           | 2.9   | ( 23) |
| NITCHEQUON      | 9.1          | 2.6   | ( 21) | 1.0            | 5.6   | ( 21) |
| QUEBEC CITY     | 34.7         | 6.1   | ( 20) | 27.4           | 1.7   | ( 20) |
| ST HUBERT       | 26.5         | 3.6   | ( 22) | 36.3           | 1.7   | ( 22) |
| SEPT ISLES      | 27.5         | 1.5   | ( 23) | 1.7            | 6.8   | ( 22) |
| ACADIA FES      | 38.3         | 1.7   | ( 24) | 2.9            | 7.9   | ( 24) |
| CHARLO          | 10.9         | 4.4   | ( 24) | 11.6           | 3.6   | ( 24) |
| SAINT JOHN      | 7.2          | 9.8   | ( 22) | 5.7            | 5.2   | ( 22) |
| KEJIMKUIK       | 32.6         | 1.9   | ( 23) | 2.0            | 4.0   | ( 23) |
| SABLE ISLAND    | 6.5          | 2.8   | ( 9)  | DEL/ELIM       |       |       |
| SHELBURNE       | 38.2         | 1.9   | ( 23) | 3.9            | 4.5   | ( 23) |
| TRURO           | 30.1         | 2.9   | ( 24) | 8.0            | 4.1   | ( 24) |
| GANDER          | 10.8         | 2.9   | ( 20) | 8.9            | 2.5   | ( 20) |
| GOOSE           | 7.3          | 3.0   | ( 22) | 1.2            | 4.6   | ( 22) |
| STEPHENVILLE    | 13.9         | 3.9   | ( 16) | DEL/ELIM       |       |       |



LOG-NORMAL DISTRIBUTION MEANS (M) AND STANDARD DEVIATIONS (S)  
 MOYENNES (M) ET DÉVIATIONS STANDARDS (S)  
 POUR UNE DISTRIBUTION NORMALE LOGARITHMIQUE  
 1980-81

| STATION         | CA++ ( UEQ/L ) |     |        | MG++ ( UEQ/L ) |     |        |
|-----------------|----------------|-----|--------|----------------|-----|--------|
|                 | M              | S   | #MO    | M              | S   | #MO    |
| FORT RELIANCE   | 7.0            | 3.0 | ( 17 ) | DEL/ELIM       |     |        |
| HAY RIVER       | 85.1           | 2.6 | ( 17 ) | 19.1           | 2.2 | ( 17 ) |
| INUVIK          | 164.8          | 2.0 | ( 21 ) | 63.3           | 1.6 | ( 21 ) |
| MOULD BAY       | 41.3           | 1.8 | ( 12 ) | 39.9           | 2.3 | ( 12 ) |
| WHITEHORSE      | 72.7           | 2.7 | ( 17 ) | 13.3           | 3.3 | ( 17 ) |
| FORT NELSON     | 26.1           | 2.2 | ( 17 ) | 7.1            | 1.9 | ( 17 ) |
| FORT ST JOHN    | 56.8           | 2.4 | ( 23 ) | 11.7           | 2.2 | ( 23 ) |
| KELOWNA         | 16.2           | 1.8 | ( 23 ) | 3.0            | 2.3 | ( 23 ) |
| PORT HARDY      | 9.0            | 1.6 | ( 23 ) | 10.0           | 2.2 | ( 23 ) |
| PRINCE GEORGE   | 33.3           | 2.0 | ( 23 ) | 5.7            | 2.0 | ( 23 ) |
| REVELSTOKE      | 18.7           | 1.8 | ( 23 ) | 3.0            | 2.1 | ( 23 ) |
| TERRACE         | 5.7            | 2.3 | ( 24 ) | DEL/ELIM       |     |        |
| VANCOUVER       | 24.9           | 1.9 | ( 24 ) | 6.3            | 1.5 | ( 24 ) |
| CORONATION      | 36.0           | 1.6 | ( 14 ) | 10.0           | 1.9 | ( 14 ) |
| EDSON           | 54.3           | 2.1 | ( 23 ) | 10.1           | 2.1 | ( 23 ) |
| FORT MCMURRAY   | 63.0           | 2.2 | ( 14 ) | 30.3           | 2.3 | ( 14 ) |
| LETHBRIDGE      | 207.8          | 2.8 | ( 20 ) | 51.1           | 2.6 | ( 20 ) |
| ROCKY MTN HOUSE | 68.6           | 1.7 | ( 20 ) | 14.6           | 1.9 | ( 20 ) |
| CREE LAKE       | 22.2           | 2.6 | ( 23 ) | 5.8            | 2.8 | ( 23 ) |
| KINDERSLEY      | 238.5          | 1.8 | ( 16 ) | 109.0          | 1.6 | ( 16 ) |
| WYNYARD         | 173.4          | 2.9 | ( 18 ) | 70.5           | 2.6 | ( 18 ) |
| BISSETT         | 19.9           | 1.9 | ( 23 ) | 4.8            | 2.1 | ( 23 ) |
| CHURCHILL       | 256.5          | 1.4 | ( 8 )  | 177.9          | 1.5 | ( 8 )  |
| DAUPHIN         | 85.1           | 2.6 | ( 16 ) | 37.8           | 2.5 | ( 16 ) |
| THE PAS         | 53.5           | 1.8 | ( 23 ) | 32.9           | 1.9 | ( 23 ) |
| ATIKOKAN        | 19.6           | 1.8 | ( 21 ) | 5.0            | 1.8 | ( 21 ) |
| DORSET          | 17.1           | 2.0 | ( 23 ) | 3.8            | 1.8 | ( 23 ) |
| ELA             | 13.9           | 2.0 | ( 24 ) | 3.4            | 2.1 | ( 24 ) |
| HARROW          | 58.2           | 2.4 | ( 24 ) | 27.4           | 2.5 | ( 24 ) |
| KAPUSKASING     | 48.7           | 1.8 | ( 14 ) | 9.3            | 1.8 | ( 14 ) |
| KINGSTON        | 43.4           | 2.1 | ( 23 ) | 7.9            | 1.9 | ( 23 ) |
| MOOSONEE        | 36.7           | 2.0 | ( 22 ) | 9.9            | 1.8 | ( 22 ) |
| MOUNT FOREST    | 46.3           | 2.3 | ( 22 ) | 22.3           | 2.9 | ( 22 ) |
| PETERBOROUGH    | 39.3           | 2.5 | ( 20 ) | 5.4            | 2.3 | ( 21 ) |
| PICKLE LAKE     | 31.1           | 2.1 | ( 17 ) | 8.4            | 2.2 | ( 17 ) |
| SIMCOE          | 27.8           | 1.8 | ( 23 ) | 7.7            | 2.1 | ( 23 ) |
| TROUT LAKE      | 73.4           | 2.0 | ( 17 ) | 18.5           | 2.1 | ( 17 ) |
| CHIBOUGAMAU     | 10.6           | 2.0 | ( 24 ) | 3.3            | 2.5 | ( 24 ) |
| FORT CHIMO      | 14.8           | 1.9 | ( 21 ) | 6.4            | 1.9 | ( 21 ) |
| MANIWAKI        | 15.2           | 1.9 | ( 23 ) | 3.2            | 2.0 | ( 23 ) |
| NITCHEQUON      | 9.0            | 1.6 | ( 21 ) | DEL/ELIM       |     |        |
| QUEBEC CITY     | 30.9           | 2.5 | ( 20 ) | 3.4            | 1.8 | ( 20 ) |
| ST HUBERT       | 44.7           | 2.0 | ( 22 ) | 6.8            | 2.1 | ( 22 ) |
| SEPT ISLES      | 8.6            | 1.5 | ( 23 ) | 6.3            | 1.9 | ( 23 ) |
| ACADIA FES      | 8.1            | 2.1 | ( 24 ) | 3.8            | 2.4 | ( 24 ) |
| CHARLO          | 21.4           | 2.2 | ( 24 ) | 6.5            | 2.1 | ( 24 ) |
| SAINT JOHN      | 22.0           | 2.3 | ( 21 ) | 16.2           | 2.4 | ( 21 ) |
| KEJIMKUIK       | 6.1            | 2.7 | ( 23 ) | 4.8            | 2.5 | ( 23 ) |
| SABLE ISLAND    | 40.1           | 2.1 | ( 9 )  | 161.7          | 2.9 | ( 9 )  |
| SHELBURNE       | 6.9            | 1.6 | ( 23 ) | 10.4           | 2.3 | ( 23 ) |
| TRURO           | 11.3           | 2.2 | ( 24 ) | 5.8            | 2.4 | ( 24 ) |
| GANDER          | 7.8            | 2.3 | ( 20 ) | 6.3            | 2.2 | ( 20 ) |
| GOOSE           | 5.1            | 1.7 | ( 22 ) | DEL/ELIM       |     |        |
| STEPHENVILLE    | 12.2           | 2.0 | ( 16 ) | 8.5            | 3.5 | ( 16 ) |



LOG-NORMAL DISTRIBUTION MEANS (M) AND STANDARD DEVIATIONS (S)  
 MOYENNES (M) ET DÉVIATIONS STANDARDS (S)  
 POUR UNE DISTRIBUTION NORMALE LOGARITHMIQUE  
 1980-81

| STATION         | NA+ ( UEG/L ) |          |       | SO4 = ( UEG/L ) |          |       |
|-----------------|---------------|----------|-------|-----------------|----------|-------|
|                 | M             | S        | #MO   | M               | S        | #MO   |
| FORT RELIANCE   | 5.8           | 2.6      | ( 16) | 12.             | 2.       | ( 17) |
| HAY RIVER       | 16.6          | 2.7      | ( 17) | 35.             | 2.       | ( 17) |
| INUUVIK         | 31.7          | 2.0      | ( 21) | 27.             | 2.       | ( 21) |
| MOULD BAY       | 115.7         | 2.5      | ( 12) | 45.             | 1.       | ( 12) |
| WHITEHORSE      | 9.8           | 2.9      | ( 15) | 31.             | 2.       | ( 17) |
| FORT NELSON     | 15.5          | 2.1      | ( 17) | 16.             | 2.       | ( 17) |
| FORT ST JOHN    |               | DEL/ELIM |       | 38.             | 2.       | ( 22) |
| KELOWNA         | 9.3           | 2.4      | ( 23) | 17.             | 2.       | ( 23) |
| PORT HARDY      | 40.6          | 2.1      | ( 23) |                 | DEL/ELIM |       |
| PRINCE GEORGE   | 33.3          | 1.7      | ( 23) | 36.             | 2.       | ( 23) |
| REVELSTOKE      |               | DEL/ELIM |       | 14.             | 2.       | ( 23) |
| TERRACE         |               | DEL/ELIM |       | 11.             | 2.       | ( 24) |
| VANCOUVER       | 25.4          | 1.7      | ( 24) | 40.             | 1.       | ( 24) |
| CORONATION      | 18.9          | 2.8      | ( 13) | 47.             | 2.       | ( 15) |
| EDSON           | 8.4           | 3.0      | ( 22) | 35.             | 2.       | ( 23) |
| FORT MCMURRAY   | 24.7          | 2.4      | ( 14) | 45.             | 2.       | ( 14) |
| LETHBRIDGE      | 13.3          | 2.9      | ( 21) | 76.             | 2.       | ( 21) |
| ROCKY MTN HOUSE |               | DEL/ELIM |       | 62.             | 2.       | ( 20) |
| CREE LAKE       | 17.9          | 3.7      | ( 22) | 26.             | 2.       | ( 23) |
| KINDERSLEY      | 34.1          | 3.4      | ( 15) | 54.             | 2.       | ( 16) |
| WYNYARD         | 20.9          | 2.8      | ( 18) | 57.             | 2.       | ( 18) |
| BISSETT         |               | DEL/ELIM |       | 20.             | 2.       | ( 23) |
| CHURCHILL       | 186.1         | 2.3      | ( 8)  | 62.             | 2.       | ( 8)  |
| DAUPHIN         | 6.5           | 2.6      | ( 16) | 34.             | 2.       | ( 16) |
| THE PAS         | 10.1          | 2.5      | ( 22) | 32.             | 2.       | ( 23) |
| ATIKOKAN        | 7.8           | 2.4      | ( 21) | 33.             | 2.       | ( 21) |
| DORSET          |               | DEL/ELIM |       | 67.             | 2.       | ( 23) |
| ELA             | 6.5           | 2.4      | ( 23) | 22.             | 2.       | ( 24) |
| HARROW          |               | DEL/ELIM |       | 106.            | 2.       | ( 24) |
| KAPUSKASING     | 4.7           | 4.0      | ( 14) | 50.             | 1.       | ( 14) |
| KINGSTON        |               | DEL/ELIM |       | 86.             | 1.       | ( 23) |
| MOOSONEE        | 13.2          | 1.9      | ( 22) | 30.             | 2.       | ( 22) |
| MOUNT FOREST    | 9.8           | 4.1      | ( 22) | 84.             | 1.       | ( 22) |
| PETERBOROUGH    | 4.7           | 2.9      | ( 21) | 74.             | 2.       | ( 21) |
| PICKLE LAKE     |               | DEL/ELIM |       | 28.             | 2.       | ( 17) |
| SIMCOE          | 10.1          | 2.5      | ( 23) | 86.             | 1.       | ( 23) |
| TROUT LAKE      | 23.4          | 2.5      | ( 16) | 37.             | 2.       | ( 17) |
| CHIBOUGAMAU     | 5.5           | 2.3      | ( 23) | 33.             | 2.       | ( 24) |
| FORT CHIMO      | 21.4          | 2.5      | ( 21) | 20.             | 2.       | ( 21) |
| MANIWAKI        |               | DEL/ELIM |       | 62.             | 2.       | ( 23) |
| NITCHEQUON      | 10.8          | 1.8      | ( 21) | 16.             | 2.       | ( 21) |
| QUEBEC CITY     |               | DEL/ELIM |       | 81.             | 1.       | ( 20) |
| ST HUBERT       |               | DEL/ELIM |       | 85.             | 2.       | ( 22) |
| SEPT ISLES      | 28.0          | 1.9      | ( 23) | 31.             | 2.       | ( 23) |
| ACADIA FES      | 8.2           | 2.3      | ( 24) | 33.             | 2.       | ( 24) |
| CHARLO          | 34.1          | 2.1      | ( 24) | 46.             | 2.       | ( 24) |
| SAINT JOHN      | 25.5          | 2.9      | ( 21) | 46.             | 2.       | ( 22) |
| KEJIMKUJIK      | 16.8          | 2.5      | ( 23) | 32.             | 2.       | ( 23) |
| SABLE ISLAND    | 608.1         | 2.5      | ( 9)  | 106.            | 2.       | ( 9)  |
| SHELBURNE       | 41.1          | 2.6      | ( 23) | 38.             | 2.       | ( 23) |
| TRURO           | 26.7          | 2.5      | ( 24) | 50.             | 2.       | ( 24) |
| GANDER          | 26.4          | 2.2      | ( 20) |                 | DEL/ELIM |       |
| GOOSE           | 11.8          | 2.0      | ( 22) | 18.             | 1.       | ( 22) |
| STEPHENVILLE    | 45.0          | 3.1      | ( 16) | 32.             | 2.       | ( 16) |



LOG-NORMAL DISTRIBUTION MEANS (M) AND STANDARD DEVIATIONS (S)  
 MOYENNES (M) ET DÉVIATIONS STANDARDS (S)  
 POUR UNE DISTRIBUTION NORMALE LOGARITHMIQUE  
 1980-81

| STATION         | NO3- ( UEQ/L ) |          |       | CL- ( UEQ/L ) |       |       |
|-----------------|----------------|----------|-------|---------------|-------|-------|
|                 | M              | S        | #MO   | M             | S     | #MO   |
| -----           | -----          | -----    | ----- | -----         | ----- | ----- |
| FORT RELIANCE   |                | DEL/ELIM |       | 4.7           | 2.8   | ( 15) |
| HAY RIVER       | 3.4            | 4.9      | ( 17) | 15.0          | 2.6   | ( 17) |
| INUUVIK         | 3.3            | 3.5      | ( 21) | 27.1          | 2.4   | ( 21) |
| MOULD BAY       | 3.6            | 2.8      | ( 12) | 130.1         | 2.7   | ( 12) |
| WHITEHORSE      | 5.5            | 6.0      | ( 15) | 14.5          | 2.3   | ( 17) |
| FORT NELSON     | 2.7            | 4.0      | ( 17) | 8.0           | 2.7   | ( 17) |
| FORT ST JOHN    | 14.7           | 3.5      | ( 21) | 10.7          | 2.9   | ( 22) |
| KELOWNA         | 4.9            | 5.5      | ( 23) | 6.7           | 2.1   | ( 22) |
| PORT HARDY      | 1.8            | 2.8      | ( 23) | 48.0          | 2.4   | ( 22) |
| PRINCE GEORGE   | 6.9            | 2.2      | ( 23) | 21.0          | 1.6   | ( 23) |
| REVELSTOKE      | 5.3            | 2.9      | ( 23) | 5.6           | 1.8   | ( 20) |
| TERRACE         |                | DEL/ELIM |       | 4.5           | 2.6   | ( 21) |
| VANCOUVER       | 16.2           | 1.8      | ( 24) | 29.6          | 1.6   | ( 23) |
| CORONATION      | 12.7           | 5.2      | ( 14) | 9.4           | 2.9   | ( 15) |
| EDSON           | 11.1           | 2.1      | ( 23) | 5.3           | 3.3   | ( 22) |
| FORT MCMURRAY   | 6.7            | 5.5      | ( 14) | 14.1          | 3.4   | ( 14) |
| LETHBRIDGE      | 33.5           | 2.4      | ( 21) | 9.9           | 4.6   | ( 21) |
| ROCKY MTN HOUSE | 5.4            | 5.6      | ( 19) | 15.1          | 2.8   | ( 20) |
| CREE LAKE       | 9.7            | 3.4      | ( 22) | 15.2          | 3.0   | ( 23) |
| KINDERSLEY      | 33.4           | 2.0      | ( 16) | 28.4          | 4.0   | ( 16) |
| WYNYARD         | 32.5           | 3.1      | ( 18) | 12.9          | 3.8   | ( 18) |
| BISSETT         | 2.3            | 7.2      | ( 23) | 4.5           | 2.4   | ( 22) |
| CHURCHILL       | 3.0            | 3.8      | ( 8)  | 178.1         | 2.7   | ( 8)  |
| DAUPHIN         | 13.8           | 4.2      | ( 16) | 6.8           | 2.6   | ( 16) |
| THE PAS         | 14.8           | 1.8      | ( 23) | 7.0           | 2.7   | ( 21) |
| ATIKOKAN        | 20.6           | 1.8      | ( 21) | 6.5           | 3.0   | ( 20) |
| DORSET          | 35.2           | 1.5      | ( 23) | 4.3           | 3.1   | ( 23) |
| ELA             | 14.6           | 2.8      | ( 24) | 4.5           | 3.1   | ( 23) |
| HARROW          | 37.5           | 3.4      | ( 24) | 10.0          | 3.2   | ( 23) |
| KAPUSKASING     | 13.3           | 4.7      | ( 14) | 5.6           | 2.5   | ( 13) |
| KINGSTON        | 61.3           | 1.5      | ( 23) | 7.9           | 3.2   | ( 23) |
| MOOSONEE        | 6.7            | 4.9      | ( 21) | 14.7          | 2.4   | ( 22) |
| MOUNT FOREST    | 46.9           | 1.6      | ( 22) | 8.7           | 3.3   | ( 22) |
| PETERBOROUGH    | 46.4           | 1.6      | ( 20) | 7.0           | 3.0   | ( 19) |
| PICKLE LAKE     | 8.2            | 4.7      | ( 17) | 4.8           | 1.7   | ( 16) |
| SIMCOE          | 50.7           | 1.4      | ( 23) | 10.9          | 2.9   | ( 22) |
| TROUT LAKE      | 7.1            | 5.6      | ( 16) | 23.7          | 2.5   | ( 17) |
| CHIBOUGAMAU     | 15.8           | 1.9      | ( 24) | 6.8           | 2.8   | ( 24) |
| FORT CHIMO      | 3.7            | 4.9      | ( 21) | 24.3          | 2.5   | ( 21) |
| MANIWAKI        | 27.8           | 3.0      | ( 23) | 4.5           | 3.2   | ( 23) |
| NITCHEQUON      | 1.7            | 4.6      | ( 21) | 8.8           | 2.2   | ( 21) |
| QUEBEC CITY     | 29.4           | 1.7      | ( 20) | 9.6           | 2.9   | ( 20) |
| ST HUBERT       | 39.6           | 1.6      | ( 22) | 13.8          | 3.2   | ( 22) |
| SEPT ISLES      | 6.5            | 3.3      | ( 22) | 29.4          | 2.4   | ( 23) |
| ACADIA FES      | 12.0           | 2.8      | ( 24) | 7.7           | 2.2   | ( 24) |
| CHARLO          | 12.5           | 2.0      | ( 24) | 28.8          | 2.3   | ( 24) |
| SAINT JOHN      | 14.0           | 3.1      | ( 22) | 28.4          | 3.6   | ( 22) |
| KEJIMKUJIK      | 8.5            | 3.5      | ( 23) | 19.9          | 2.5   | ( 23) |
| SABLE ISLAND    | 2.8            | 4.7      | ( 9)  | 785.7         | 2.9   | ( 9)  |
| SHELBURNE       | 14.2           | 2.0      | ( 23) | 48.9          | 2.5   | ( 23) |
| TRURO           | 13.6           | 1.9      | ( 24) | 26.3          | 2.7   | ( 24) |
| GANDER          | 4.2            | 2.0      | ( 20) | 35.0          | 2.5   | ( 20) |
| GOOSE           | 1.6            | 3.6      | ( 22) | 6.8           | 2.4   | ( 22) |
| STEPHEENVILLE   |                | DEL/ELIM |       | 47.4          | 3.2   | ( 16) |





# ANNEXE V

TABLEAUX DES CONCENTRATIONS ANNUELLES MOYENNES PONDÉRÉES  
PAR LA HAUTEUR DES PRÉCIPITATIONS POUR LES PRINCIPAUX IONS  
ET LE pH. "ELIM" INDIQUE QUE LES DONNÉES DISPONIBLES ÉTAIENT  
INSUFFISANTES (MOINS DE 8 MOIS) POUR QUE L'ON PUISSE  
CALCULER UNE CONCENTRATION ANNUELLE MOYENNE.

# APPENDIX V

TABLES OF OBSERVED ANNUAL PRECIPITATION-AMOUNT-WEIGHTED-  
MEAN CONCENTRATIONS OF THE MAJORS IONS AND pH. "DEL" DENOTES  
THAT INSUFFICIENT DATA (FEWER THAN 8 MONTHS) WAS AVAILABLE  
FOR THE CALCULATION OF AN ANNUAL AVERAGE CONCENTRATION.





PRECIPITATION-AMOUNT-WEIGHTED MEAN CONCENTRATIONS  
CONCENTRATIONS MOYENNES PONDÉRÉES PAR LA HAUTEUR DES PRÉCIPITATIONS  
1981

| STATION         | PH L     |       | H+       |       | NH4+     |       | CA++     |       |
|-----------------|----------|-------|----------|-------|----------|-------|----------|-------|
|                 | #MO      |       | UEQ/L    | #MO   | UEQ/L    | #MO   | UEQ/L    | #MO   |
| FORT RELIANCE   | 4.9      | ( 9)  | 14.1     | ( 9)  | DEL/ELIM |       | 7.7      | ( 9)  |
| HAY RIVER       | 6.4      | ( 10) | 0.4      | ( 10) | 34.73    | ( 10) | 72.5     | ( 10) |
| INUUVIK         | 6.4      | ( 10) | 0.4      | ( 10) | 4.18     | ( 10) | 273.8    | ( 10) |
| MOULD BAY       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       |
| WHITEHORSE      | 5.4      | ( 9)  | 4.0      | ( 9)  | 3.43     | ( 9)  | 93.5     | ( 9)  |
| FORT NELSON     | 5.9      | ( 9)  | 1.3      | ( 9)  | 16.95    | ( 9)  | 19.8     | ( 9)  |
| FORT ST JOHN    | 5.5      | ( 11) | 3.1      | ( 11) | 1.51     | ( 11) | 51.8     | ( 11) |
| KELOWNA         | 5.4      | ( 11) | 4.0      | ( 11) | 10.34    | ( 11) | 17.3     | ( 11) |
| PORT HARDY      | 5.1      | ( 11) | 8.4      | ( 11) | 3.48     | ( 11) | 7.1      | ( 11) |
| PRINCE GEORGE   | 5.7      | ( 11) | 2.2      | ( 11) | 12.67    | ( 11) | 50.0     | ( 11) |
| REVELSTOKE      | 5.4      | ( 11) | 4.4      | ( 11) | 5.53     | ( 11) | 14.7     | ( 11) |
| TERRACE         | 5.1      | ( 12) | 8.3      | ( 12) | 0.50     | ( 12) | 3.3      | ( 12) |
| VANCOUVER       | 4.7      | ( 12) | 20.8     | ( 12) | 12.16    | ( 12) | 16.6     | ( 12) |
| CORONATION      | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       |
| EDSON           | 5.6      | ( 11) | 2.4      | ( 11) | 8.87     | ( 12) | 53.9     | ( 12) |
| LETHBRIDGE      | 6.3      | ( 11) | 0.5      | ( 11) | 23.23    | ( 11) | 133.8    | ( 11) |
| ROCKY MTN HOUSE | 5.7      | ( 9)  | 2.1      | ( 9)  | 22.98    | ( 8)  | 54.6     | ( 8)  |
| CREE LAKE       | 5.3      | ( 12) | 4.5      | ( 12) | 7.29     | ( 12) | 41.3     | ( 12) |
| KINDERSLEY      | 6.4      | ( 8)  | 0.4      | ( 8)  | 1.73     | ( 8)  | 171.7    | ( 8)  |
| WYNYARD         | 6.3      | ( 8)  | 0.5      | ( 8)  | 5.10     | ( 8)  | 110.0    | ( 8)  |
| BISSETT         | 5.0      | ( 11) | 9.1      | ( 11) | 2.53     | ( 11) | 17.1     | ( 11) |
| CHURCHILL       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       |
| DAUPHIN         | 6.2      | ( 8)  | 0.6      | ( 8)  | 12.45    | ( 8)  | 76.4     | ( 8)  |
| THE PAS         | 6.0      | ( 12) | 1.0      | ( 12) | 12.83    | ( 12) | 34.3     | ( 12) |
| ATIKOKAN        | 4.9      | ( 12) | 12.6     | ( 12) | 20.26    | ( 12) | 23.0     | ( 12) |
| DORSET          | 4.2      | ( 12) | 69.0     | ( 12) | 27.05    | ( 12) | 20.9     | ( 12) |
| ELA             | 4.9      | ( 12) | 11.5     | ( 12) | 16.95    | ( 12) | 10.2     | ( 12) |
| HARROW          | 4.1      | ( 12) | 74.5     | ( 12) | 24.04    | ( 12) | 39.7     | ( 12) |
| KAPUSKASING     | 4.9      | ( 9)  | 12.7     | ( 9)  | 17.10    | ( 9)  | 41.5     | ( 9)  |
| KINGSTON        | 4.0      | ( 12) | 90.8     | ( 12) | 19.46    | ( 12) | 34.3     | ( 12) |
| MOOSONEE        | 5.2      | ( 12) | 6.8      | ( 12) | 4.65     | ( 12) | 33.5     | ( 12) |
| MOUNT FOREST    | 4.3      | ( 11) | 48.0     | ( 11) | 41.91    | ( 11) | 37.7     | ( 11) |
| PETERBOROUGH    | 4.2      | ( 12) | 58.1     | ( 12) | 28.14    | ( 12) | 28.4     | ( 12) |
| PICKLE LAKE     | 5.2      | ( 11) | 6.3      | ( 11) | 5.83     | ( 11) | 32.9     | ( 11) |
| SIMCOE          | 4.1      | ( 12) | 87.7     | ( 12) | 25.73    | ( 12) | 26.3     | ( 12) |
| TROUT LAKE      | 6.4      | ( 11) | 0.4      | ( 11) | 14.48    | ( 12) | 56.4     | ( 12) |
| CHIBOUGAMAU     | 4.5      | ( 12) | 33.0     | ( 12) | 10.58    | ( 12) | 9.9      | ( 12) |
| FORT CHIMO      | 5.3      | ( 10) | 5.3      | ( 10) | 8.37     | ( 10) | 15.9     | ( 10) |
| MANIWAKI        | 4.2      | ( 12) | 58.6     | ( 12) | 22.87    | ( 12) | 14.4     | ( 12) |
| NITCHEQUON      | 4.9      | ( 10) | 13.6     | ( 10) | 4.28     | ( 10) | 7.0      | ( 10) |
| QUEBEC CITY     | 4.2      | ( 8)  | 66.5     | ( 8)  | 21.26    | ( 8)  | 19.7     | ( 8)  |
| ST HUBERT       | 4.5      | ( 11) | 32.8     | ( 11) | 51.57    | ( 11) | 51.0     | ( 11) |
| SEPT ISLES      | 4.5      | ( 11) | 28.3     | ( 11) | 4.21     | ( 11) | 6.8      | ( 11) |
| ACADIA FES      | 4.4      | ( 12) | 43.4     | ( 12) | 7.03     | ( 12) | 6.6      | ( 12) |
| CHARLO          | 4.7      | ( 12) | 21.8     | ( 12) | 10.43    | ( 12) | 18.5     | ( 12) |
| SAINT JOHN      | 4.6      | ( 10) | 22.7     | ( 10) | 8.38     | ( 10) | 19.9     | ( 9)  |
| KEJIMIKUJIK     | 4.5      | ( 12) | 31.3     | ( 12) | 2.68     | ( 12) | 4.6      | ( 12) |
| SABLE ISLAND    | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       |
| SHELBURNE       | 4.5      | ( 12) | 31.7     | ( 12) | 4.62     | ( 12) | 5.7      | ( 12) |
| TRURO           | 4.4      | ( 12) | 37.1     | ( 12) | 9.48     | ( 12) | 10.7     | ( 12) |
| GANDER          | 4.8      | ( 11) | 14.2     | ( 11) | 9.14     | ( 11) | 4.4      | ( 11) |
| GOOSE           | 5.2      | ( 11) | 6.4      | ( 11) | 2.22     | ( 11) | 3.7      | ( 11) |
| STEPHENVILLE    | 4.7      | ( 10) | 21.1     | ( 10) | DEL/ELIM |       | 13.4     | ( 10) |



PRECIPITATION-AMOUNT-WEIGHTED MEAN CONCENTRATIONS  
 CONCENTRATIONS MOYENNES PONDÉRÉES PAR LA HAUTEUR DES PRÉCIPITATIONS  
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| STATION         | MG++     |       | NA+      |       | K+       |       | SO4 =    |       |
|-----------------|----------|-------|----------|-------|----------|-------|----------|-------|
|                 | UEQ/L    | µMO   | UEQ/L    | µMO   | UEQ/L    | µMO   | UEQ/L    | µMO   |
| FORT RELIANCE   | DEL/ELIM |       | 4.2      | ( 8)  | DEL/ELIM |       | 14.      | ( 9)  |
| HAY RIVER       | 15.6     | ( 10) | 14.0     | ( 10) | 4.3      | ( 10) | 31.      | ( 10) |
| INUVIK          | 61.8     | ( 10) | 18.5     | ( 10) | 5.6      | ( 10) | 22.      | ( 10) |
| MOULD BAY       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       |
| WHITEHORSE      | 38.6     | ( 9)  | 11.1     | ( 9)  | 7.4      | ( 9)  | 43.      | ( 9)  |
| FORT NELSON     | 4.2      | ( 9)  | 10.7     | ( 9)  | 6.1      | ( 9)  | 14.      | ( 9)  |
| FORT ST JOHN    | 10.6     | ( 11) | 9.1      | ( 11) | 3.3      | ( 11) | 28.      | ( 11) |
| KELOWNA         | 5.2      | ( 11) | 8.3      | ( 11) | 3.8      | ( 11) | 18.      | ( 11) |
| PORT HARDY      | 15.1     | ( 11) | 67.8     | ( 11) | 2.0      | ( 11) | DEL/ELIM |       |
| PRINCE GEORGE   | 13.4     | ( 11) | 28.2     | ( 11) | 8.7      | ( 11) | 33.      | ( 11) |
| REVELSTOKE      | 2.8      | ( 11) | 7.1      | ( 11) | 2.8      | ( 11) | 13.      | ( 11) |
| TERRACE         | DEL/ELIM |       | 5.1      | ( 12) | 0.7      | ( 12) | DEL/ELIM |       |
| VANCOUVER       | 7.6      | ( 12) | 34.5     | ( 12) | 3.0      | ( 12) | 36.      | ( 12) |
| CORONATION      | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       |
| EDSON           | 10.7     | ( 12) | 7.3      | ( 12) | 2.0      | ( 12) | 34.      | ( 12) |
| LETHBRIDGE      | 33.7     | ( 11) | 12.4     | ( 11) | 3.4      | ( 11) | 50.      | ( 11) |
| ROCKY MTN HOUSE | 12.3     | ( 8)  | 10.5     | ( 8)  | 2.9      | ( 8)  | 47.      | ( 8)  |
| CREE LAKE       | 8.4      | ( 12) | 27.1     | ( 12) | 10.4     | ( 12) | 27.      | ( 12) |
| KINDERSLEY      | 94.9     | ( 8)  | 30.3     | ( 8)  | 7.7      | ( 8)  | 33.      | ( 8)  |
| WYNYARD         | 44.4     | ( 8)  | 10.2     | ( 8)  | 4.3      | ( 8)  | 33.      | ( 8)  |
| BISSETT         | 4.7      | ( 11) | 3.7      | ( 11) | 0.7      | ( 11) | 17.      | ( 11) |
| CHURCHILL       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       |
| DAUPHIN         | 34.5     | ( 8)  | 5.3      | ( 8)  | 2.4      | ( 8)  | 27.      | ( 8)  |
| THE PAS         | 20.6     | ( 12) | 10.3     | ( 12) | 2.9      | ( 12) | 25.      | ( 12) |
| ATIKOKAN        | 6.0      | ( 12) | 7.2      | ( 12) | 2.3      | ( 12) | 40.      | ( 12) |
| DORSET          | 4.4      | ( 12) | 5.0      | ( 12) | 1.3      | ( 12) | 77.      | ( 12) |
| ELA             | 2.6      | ( 12) | 4.1      | ( 12) | 1.5      | ( 12) | 19.      | ( 12) |
| HARROW          | 19.0     | ( 12) | 5.2      | ( 12) | 0.7      | ( 12) | 102.     | ( 12) |
| KAPUSKASING     | 8.2      | ( 9)  | 5.0      | ( 9)  | 1.2      | ( 9)  | 48.      | ( 9)  |
| KINGSTON        | 6.6      | ( 12) | 8.6      | ( 12) | 1.5      | ( 12) | 34.      | ( 12) |
| MOOSONEE        | 9.6      | ( 12) | 18.0     | ( 12) | 3.0      | ( 12) | 28.      | ( 12) |
| MOUNT FOREST    | 19.9     | ( 11) | 10.3     | ( 11) | 1.2      | ( 11) | 89.      | ( 11) |
| PETERBOROUGH    | 4.4      | ( 12) | 4.9      | ( 12) | 1.6      | ( 12) | 71.      | ( 12) |
| PICKLE LAKE     | 9.9      | ( 11) | 7.6      | ( 11) | 2.8      | ( 11) | 32.      | ( 11) |
| SIMCOE          | 6.8      | ( 12) | 10.5     | ( 12) | 2.7      | ( 12) | 88.      | ( 12) |
| TROUT LAKE      | 13.5     | ( 12) | 31.1     | ( 12) | 8.0      | ( 12) | 33.      | ( 12) |
| CHIBOUGAMAU     | 3.8      | ( 12) | 5.2      | ( 12) | 1.6      | ( 12) | 40.      | ( 12) |
| FORT CHIMO      | 8.2      | ( 10) | 44.8     | ( 10) | 9.4      | ( 10) | 23.      | ( 10) |
| MANIWAKI        | 3.2      | ( 12) | 8.3      | ( 12) | 1.8      | ( 12) | 67.      | ( 12) |
| NITCHEQUON      | DEL/ELIM |       | 13.4     | ( 10) | 3.5      | ( 10) | 19.      | ( 10) |
| QUEBEC CITY     | 2.7      | ( 8)  | 4.8      | ( 8)  | 1.2      | ( 8)  | 74.      | ( 8)  |
| ST HUBERT       | 8.1      | ( 11) | 15.5     | ( 11) | 5.3      | ( 11) | 98.      | ( 11) |
| SEPT ISLES      | 5.6      | ( 11) | 28.5     | ( 11) | 5.0      | ( 11) | 30.      | ( 11) |
| ACADIA FES      | 3.2      | ( 12) | 7.6      | ( 12) | 1.0      | ( 12) | 37.      | ( 12) |
| CHARLO          | 10.2     | ( 12) | 49.7     | ( 12) | 7.0      | ( 12) | 44.      | ( 12) |
| SAINT JOHN      | 16.7     | ( 9)  | 29.5     | ( 9)  | 1.4      | ( 9)  | 41.      | ( 10) |
| KEJIMIKUJIK     | 6.0      | ( 12) | 26.9     | ( 12) | 1.1      | ( 12) | 28.      | ( 12) |
| SABLE ISLAND    | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       |
| SHELBURNE       | 13.7     | ( 12) | 64.1     | ( 12) | 2.3      | ( 12) | 30.      | ( 12) |
| TRURO           | 7.1      | ( 12) | 35.2     | ( 12) | 1.5      | ( 12) | 44.      | ( 12) |
| GANDER          | 5.5      | ( 11) | 27.6     | ( 11) | 1.0      | ( 11) | DEL/ELIM |       |
| GOOSE           | DEL/ELIM |       | 14.5     | ( 11) | 4.7      | ( 11) | 16.      | ( 11) |
| STEPHENVILLE    | 19.3     | ( 10) | 97.1     | ( 10) | 2.6      | ( 10) | 36.      | ( 10) |



PRECIPITATION-AMOUNT-WEIGHTED MEAN CONCENTRATIONS  
 CONCENTRATIONS MOYENNES PONDÉRÉES PAR LA HAUTEUR DES PRÉCIPITATIONS  
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| STATION         | NO3-     |       | CL-      |       | SO4 = C  |       | COR %    |       |
|-----------------|----------|-------|----------|-------|----------|-------|----------|-------|
|                 | UEQ/L    | #MO   | UEQ/L    | #MO   | UEQ/L    | #MO   |          | #MO   |
| FORT RELIANCE   | DEL/ELIM |       | DEL/ELIM |       | 14.      | ( 8)  | 4.3      | ( 8)  |
| HAY RIVER       | 7.8      | ( 10) | 13.2     | ( 10) | 29.      | ( 10) | 4.7      | ( 10) |
| INUUVIK         | 2.7      | ( 10) | 16.3     | ( 10) | 19.      | ( 10) | 12.5     | ( 10) |
| MOULD BAY       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       |
| WHITEHORSE      | 16.6     | ( 9)  | 12.7     | ( 9)  | 42.      | ( 9)  | 5.5      | ( 9)  |
| FORT NELSON     | 6.7      | ( 9)  | 8.7      | ( 9)  | 13.      | ( 9)  | 7.3      | ( 8)  |
| FORT ST JOHN    | 17.3     | ( 11) | 8.0      | ( 11) | 27.      | ( 11) | 4.2      | ( 11) |
| KELOWNA         | 6.9      | ( 11) | 9.0      | ( 10) | 17.      | ( 11) | 6.4      | ( 11) |
| PORT HARDY      | 2.0      | ( 11) | 78.8     | ( 11) | DEL/ELIM |       | DEL/ELIM |       |
| PRINCE GEORGE   | 6.3      | ( 11) | 21.6     | ( 11) | 29.      | ( 11) | 13.2     | ( 11) |
| REVELSTOKE      | 8.1      | ( 11) | 5.9      | ( 10) | 12.      | ( 11) | 6.7      | ( 11) |
| TERRACE         | DEL/ELIM |       | 5.2      | ( 10) | DEL/ELIM |       | DEL/ELIM |       |
| VANCOUVER       | 15.6     | ( 12) | 38.0     | ( 12) | 32.      | ( 12) | 12.1     | ( 12) |
| CORONATION      | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       |
| EDSON           | 10.1     | ( 12) | 5.7      | ( 11) | 34.      | ( 12) | 2.6      | ( 12) |
| LETHBRIDGE      | 22.0     | ( 11) | 10.9     | ( 11) | 48.      | ( 11) | 3.0      | ( 11) |
| ROCKY MTN HOUSE | 8.3      | ( 8)  | 9.6      | ( 8)  | DEL/ELIM |       | DEL/ELIM |       |
| CREE LAKE       | 13.7     | ( 12) | 24.7     | ( 12) | 23.      | ( 12) | 15.7     | ( 12) |
| KINDERSLEY      | 30.7     | ( 8)  | 13.2     | ( 8)  | 49.      | ( 8)  | 6.0      | ( 8)  |
| WYNYARD         | 15.4     | ( 8)  | 8.5      | ( 8)  | 32.      | ( 8)  | 3.1      | ( 8)  |
| BISSETT         | 4.6      | ( 11) | 5.1      | ( 10) | 17.      | ( 11) | 3.0      | ( 10) |
| CHURCHILL       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       |
| DAUPHIN         | 21.5     | ( 8)  | 6.1      | ( 8)  | 26.      | ( 8)  | 3.5      | ( 8)  |
| THE PAS         | 13.8     | ( 12) | 5.7      | ( 11) | 24.      | ( 12) | 5.2      | ( 12) |
| ATIKOKAN        | 19.7     | ( 12) | 7.5      | ( 11) | 39.      | ( 12) | 2.4      | ( 12) |
| DORSET          | 39.0     | ( 12) | 7.3      | ( 12) | 77.      | ( 12) | 0.9      | ( 12) |
| ELA             | 13.9     | ( 12) | 7.6      | ( 11) | 19.      | ( 12) | 3.1      | ( 12) |
| HARROW          | 44.1     | ( 12) | 10.2     | ( 11) | 102.     | ( 12) | 0.6      | ( 12) |
| KAPUSKASING     | 14.8     | ( 9)  | 5.4      | ( 8)  | 47.      | ( 9)  | 1.4      | ( 8)  |
| KINGSTON        | 63.4     | ( 12) | 11.7     | ( 12) | 83.      | ( 12) | 1.4      | ( 12) |
| MOOSONEE        | 8.8      | ( 12) | 22.5     | ( 12) | 26.      | ( 12) | 7.5      | ( 11) |
| MOUNT FOREST    | 42.3     | ( 11) | 9.7      | ( 11) | 87.      | ( 11) | 1.3      | ( 11) |
| PETERBOROUGH    | 38.7     | ( 12) | 8.4      | ( 11) | 70.      | ( 12) | 1.1      | ( 12) |
| PICKLE LAKE     | 12.0     | ( 11) | 5.0      | ( 10) | 31.      | ( 11) | 3.3      | ( 11) |
| SIMCOE          | 49.8     | ( 12) | 12.1     | ( 11) | 87.      | ( 12) | 1.8      | ( 12) |
| TROUT LAKE      | 11.6     | ( 12) | 30.1     | ( 12) | 29.      | ( 12) | 10.1     | ( 12) |
| CHIBOUGAMAU     | 16.5     | ( 12) | 8.3      | ( 12) | 39.      | ( 12) | 1.8      | ( 12) |
| FORT CHIMO      | 7.0      | ( 10) | 48.0     | ( 10) | 18.      | ( 10) | 23.5     | ( 10) |
| MANIWAKI        | 30.7     | ( 12) | 7.3      | ( 12) | 66.      | ( 12) | 1.5      | ( 12) |
| NITCHEQUON      | 4.5      | ( 10) | 10.8     | ( 10) | 18.      | ( 10) | 9.2      | ( 10) |
| QUEBEC CITY     | 26.7     | ( 8)  | 9.8      | ( 8)  | 74.      | ( 8)  | 0.8      | ( 8)  |
| ST HUBERT       | 37.3     | ( 11) | 17.4     | ( 11) | 96.      | ( 11) | 2.5      | ( 11) |
| SEPT ISLES      | 8.8      | ( 11) | 32.3     | ( 11) | 27.      | ( 11) | 12.4     | ( 11) |
| ACADIA FES      | 12.7     | ( 12) | 10.0     | ( 12) | 37.      | ( 12) | 3.6      | ( 11) |
| CHARLO          | 12.0     | ( 12) | 47.7     | ( 12) | 38.      | ( 12) | 16.7     | ( 12) |
| SAINT JOHN      | 15.1     | ( 10) | 39.4     | ( 10) | 37.      | ( 9)  | 12.8     | ( 9)  |
| KEJIMIKUJIK     | 10.1     | ( 12) | 31.2     | ( 12) | 25.      | ( 12) | 15.5     | ( 12) |
| SABLE ISLAND    | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       | DEL/ELIM |       |
| SHELBURNE       | 11.8     | ( 12) | 66.7     | ( 12) | 23.      | ( 12) | 29.9     | ( 12) |
| TRURO           | 12.6     | ( 12) | 37.3     | ( 12) | 40.      | ( 12) | 10.7     | ( 12) |
| GANDER          | 4.6      | ( 11) | 41.0     | ( 11) | DEL/ELIM |       | DEL/ELIM |       |
| GOOSE           | 2.1      | ( 11) | 11.8     | ( 11) | 14.      | ( 11) | 13.1     | ( 11) |
| STEPHENVILLE    | DEL/ELIM |       | 104.2    | ( 10) | 24.      | ( 10) | 32.8     | ( 10) |





ANNEXE VI

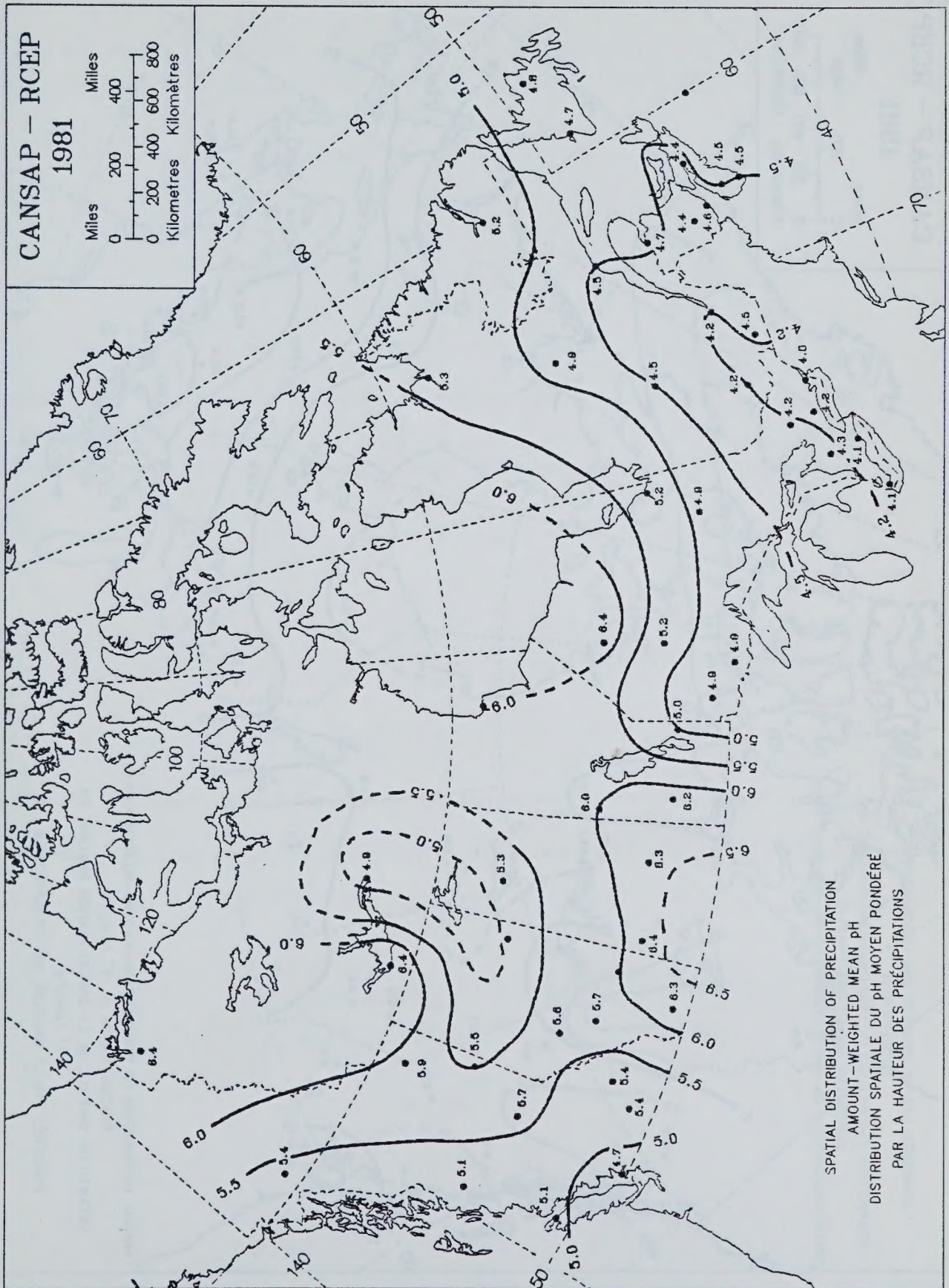
CARTES DE LA RÉPARTITION SPATIALE DES CONCENTRATIONS  
ANNUELLES MOYENNES, PONDÉRÉES PAR LA HAUTEUR DES  
PRÉCIPITATIONS POUR LES PRINCIPAUX IONS ET LE pH.

APPENDIX VI

MAPS OF THE SPATIAL DISTRIBUTION OF THE ANNUAL  
PRECIPITATION-AMOUNT-WEIGHTED-MEAN CONCENTRATIONS  
OF MAJOR IONS AND pH.



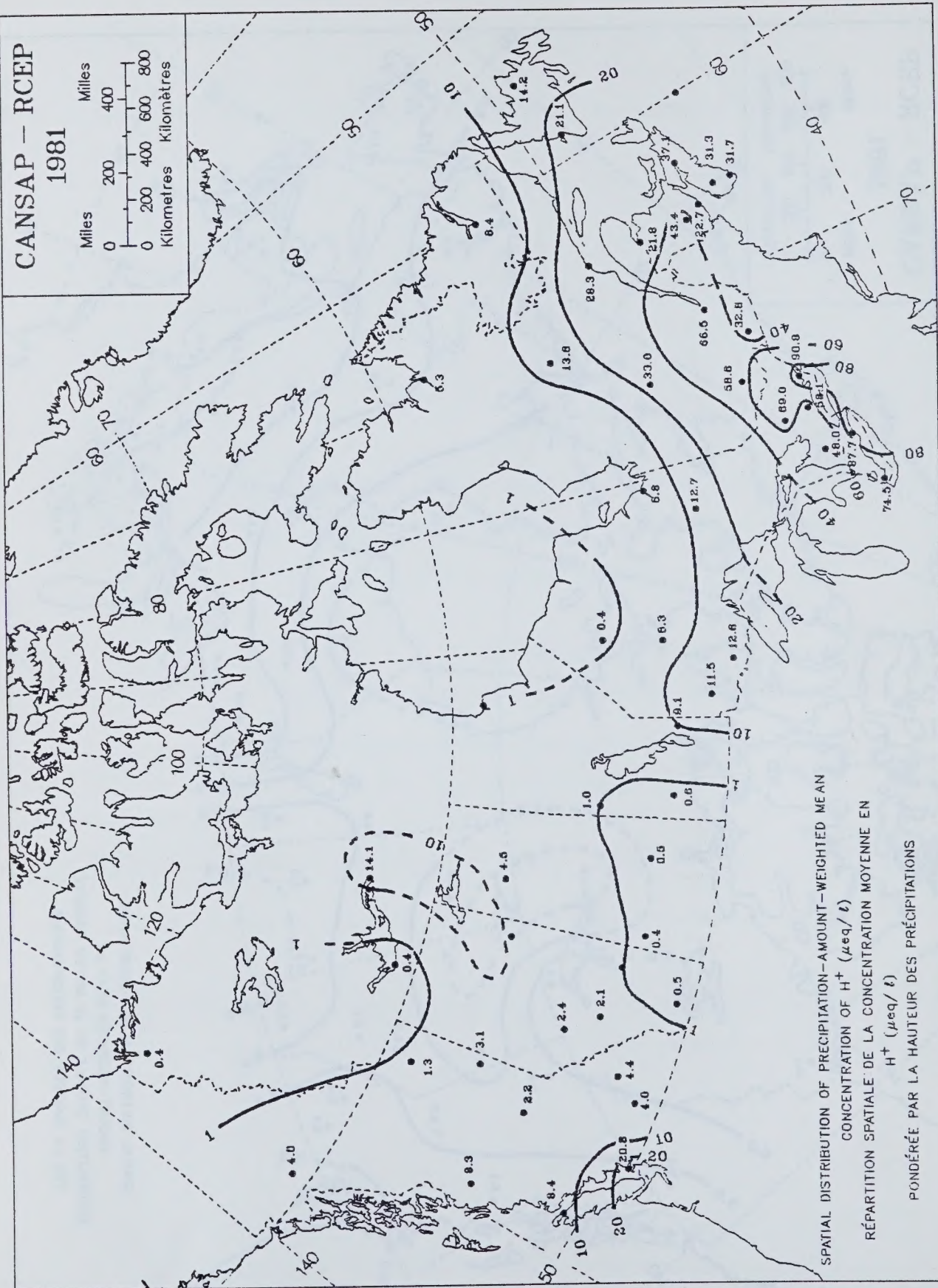






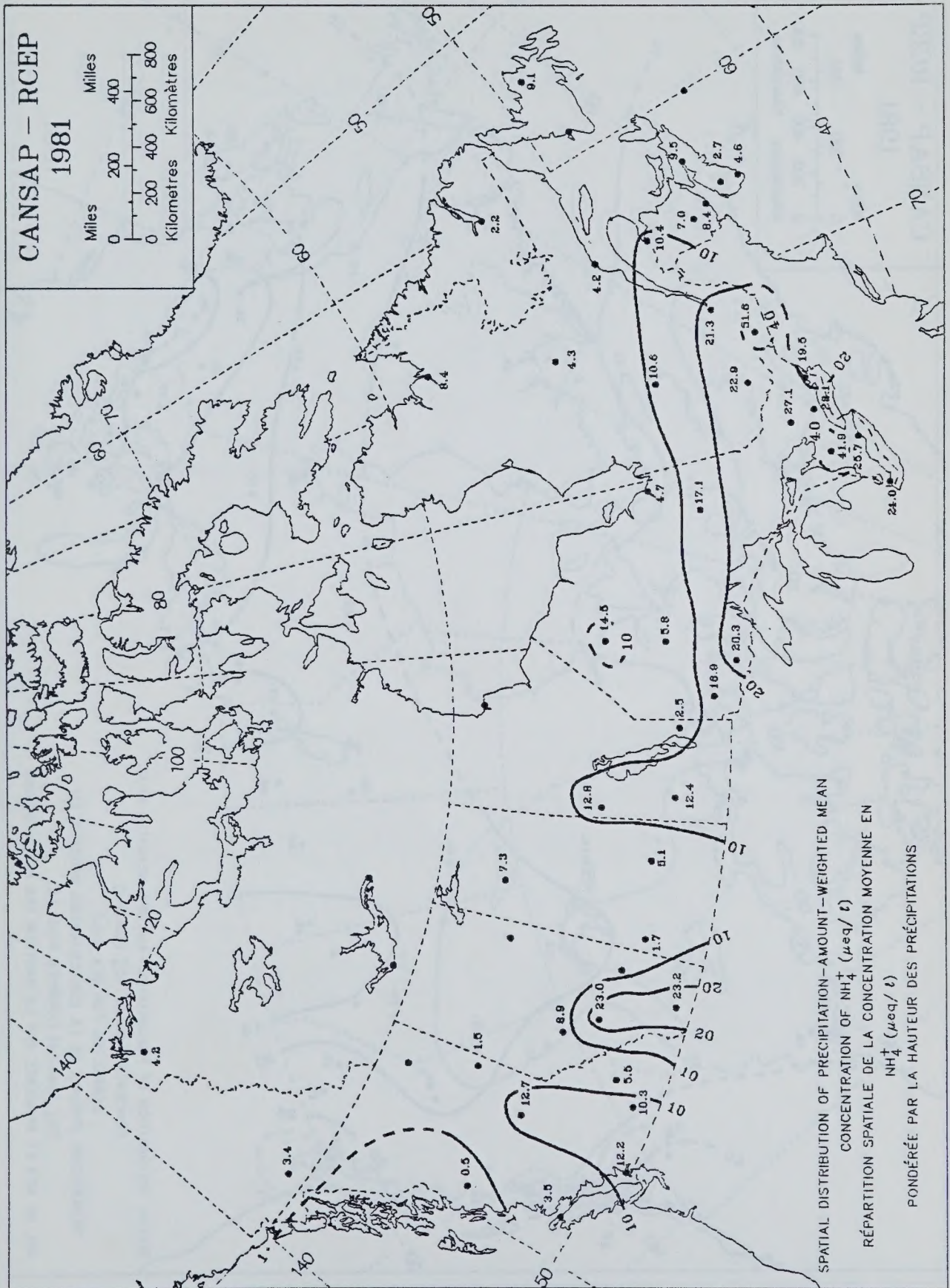
# CANSAP - RCEP 1981

Miles  
0 200 400  
Kilomètres  
0 200 400 600 800

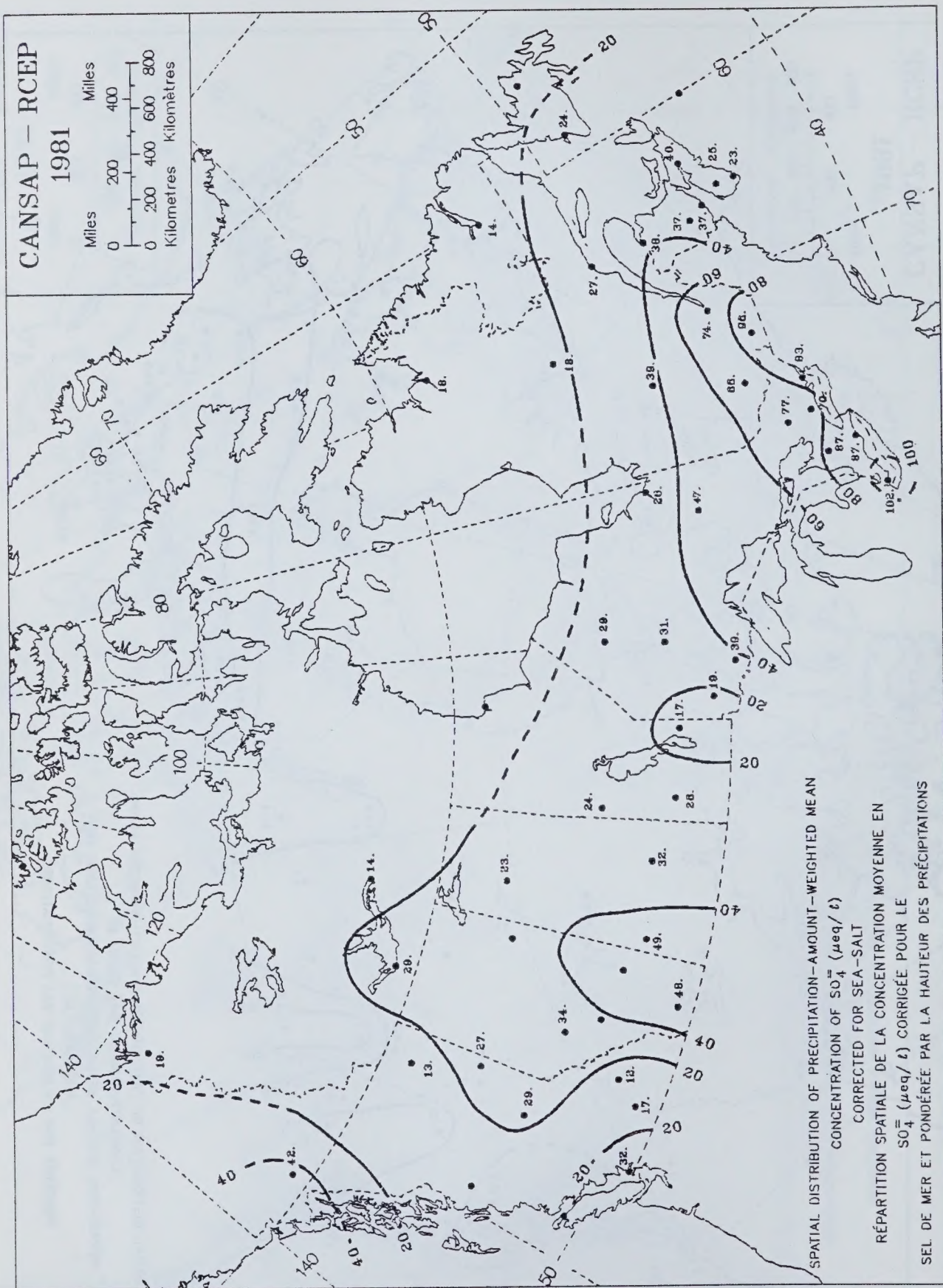


SPATIAL DISTRIBUTION OF PRECIPITATION-AMOUNT-WEIGHTED MEAN  
CONCENTRATION OF  $H^+$  ( $\mu\text{eq}/\ell$ )  
RÉPARTITION SPATIALE DE LA CONCENTRATION MOYENNE EN  
 $H^+$  ( $\mu\text{eq}/\ell$ )  
PONDÉRÉE PAR LA HAUTEUR DES PRÉCIPITATIONS

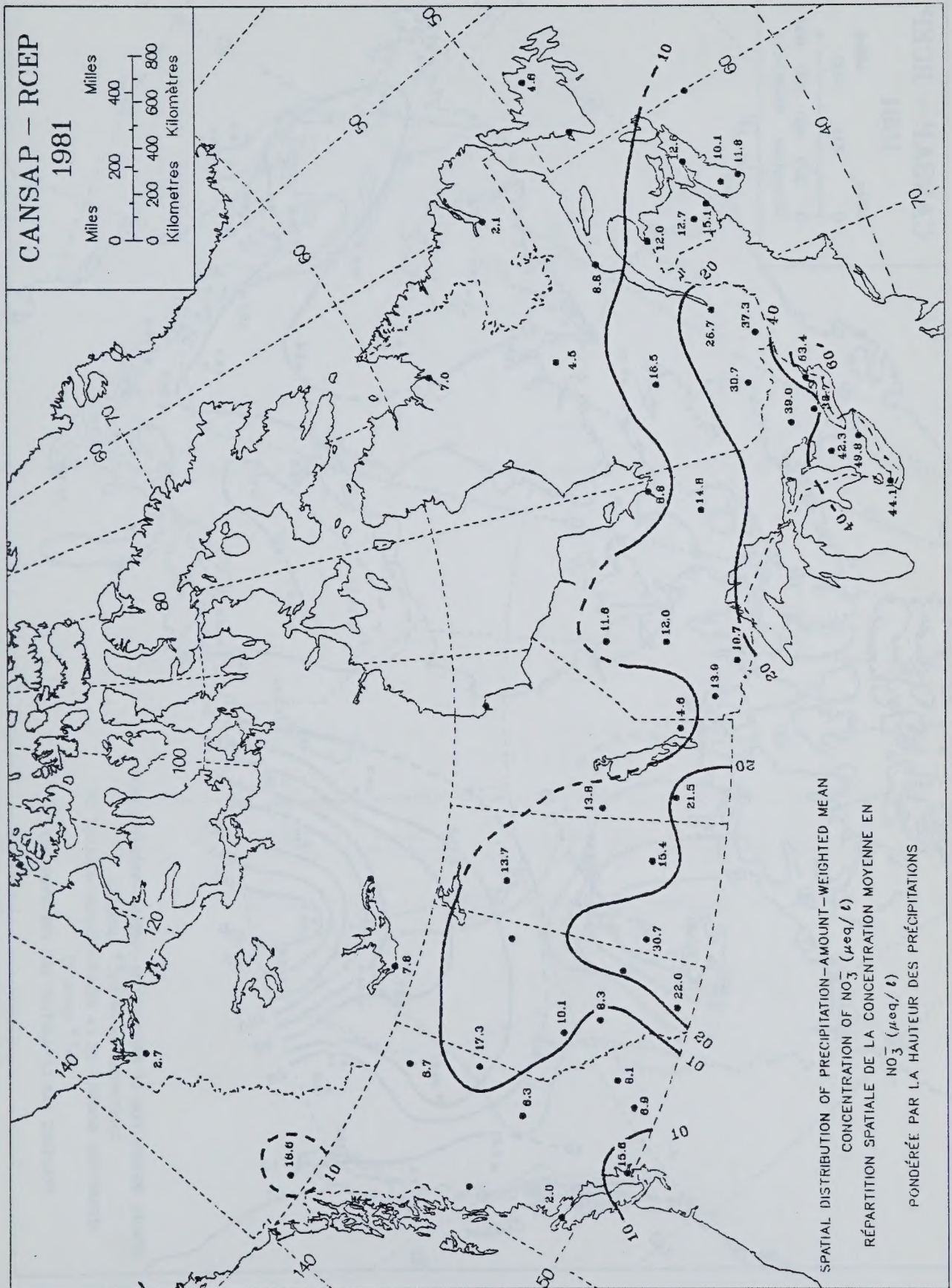




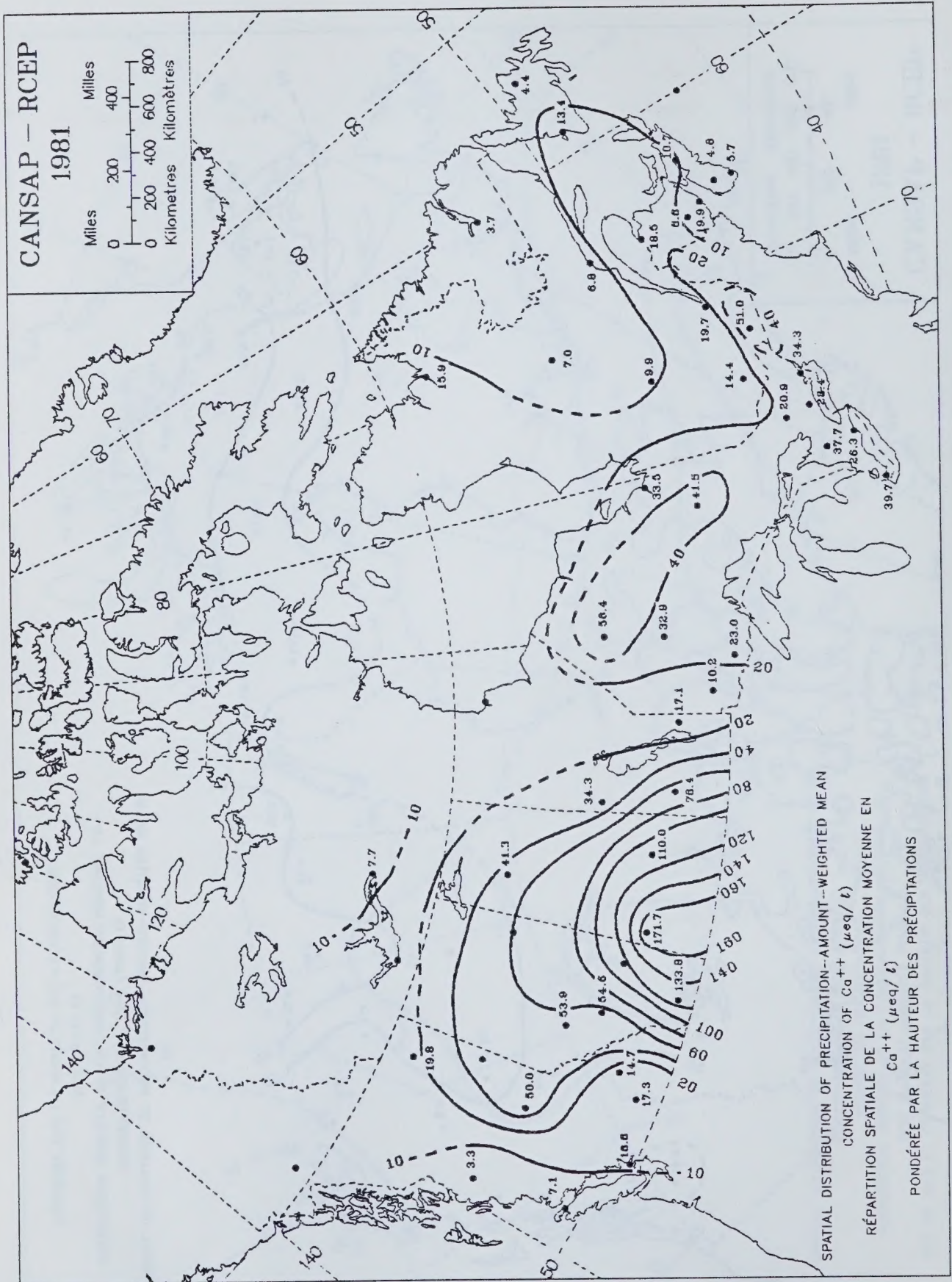




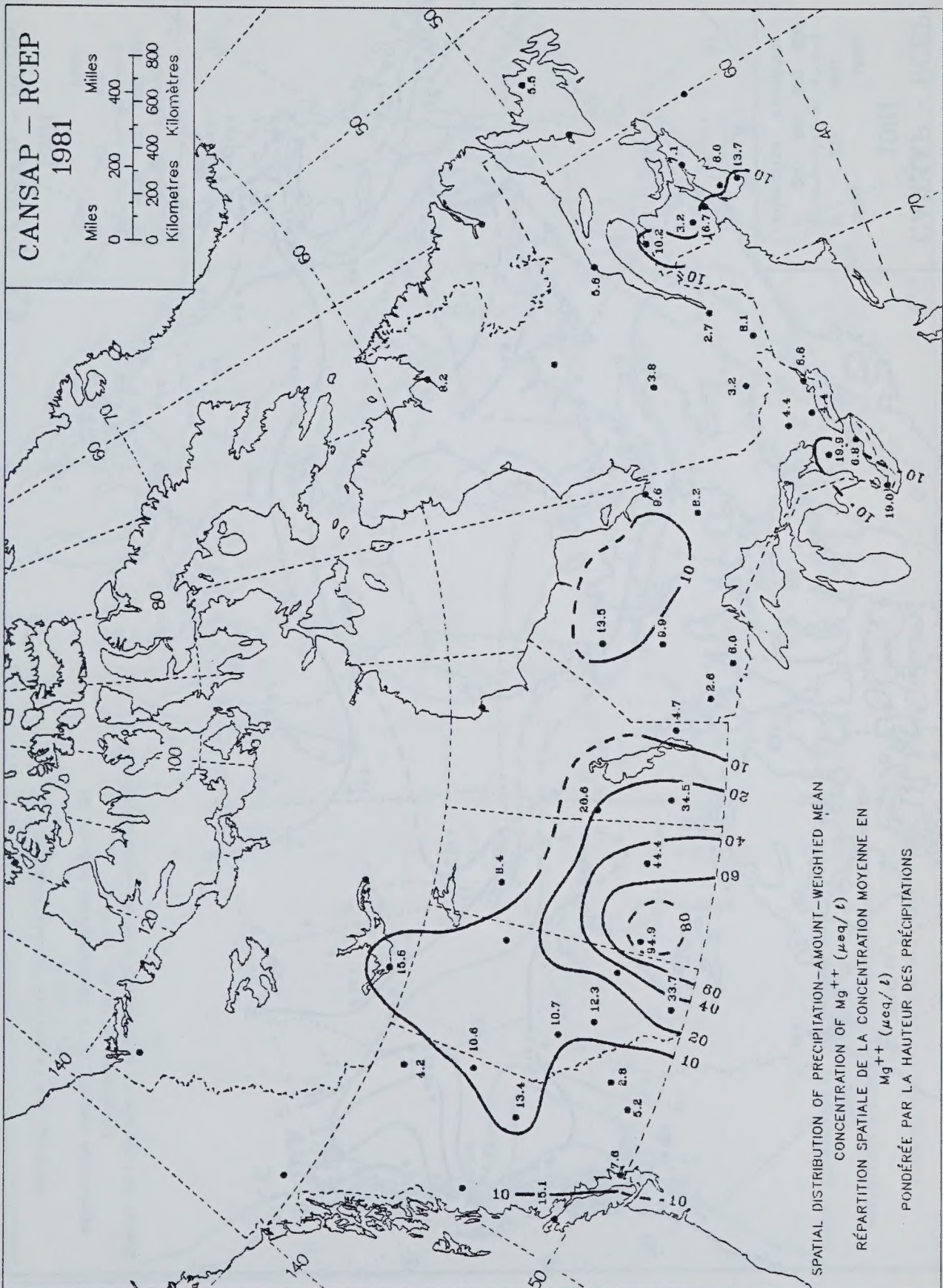














## CANSAP - RCEP

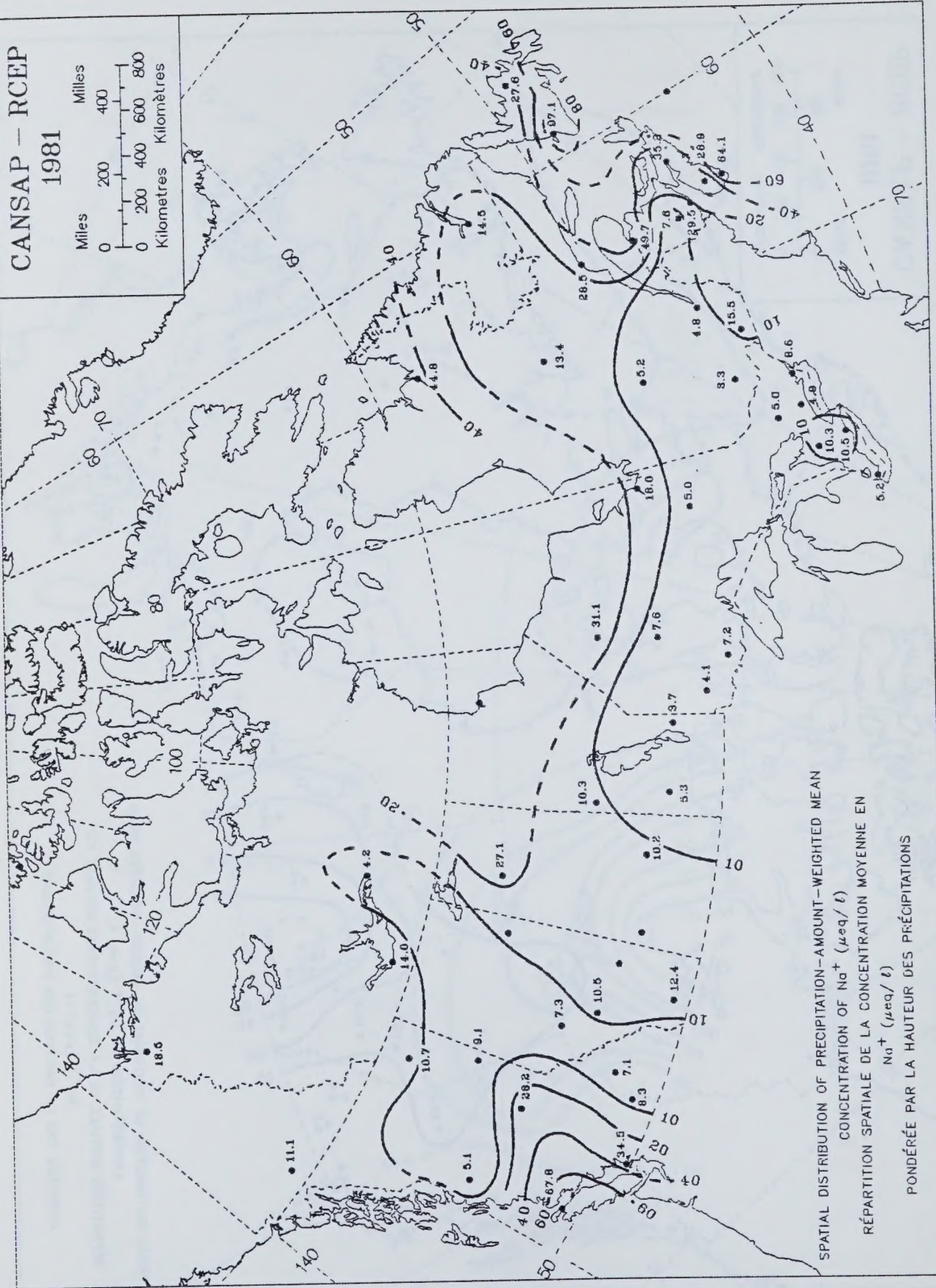
1981

Miles

0 200 400

Kilometres

0 200 400 600 800

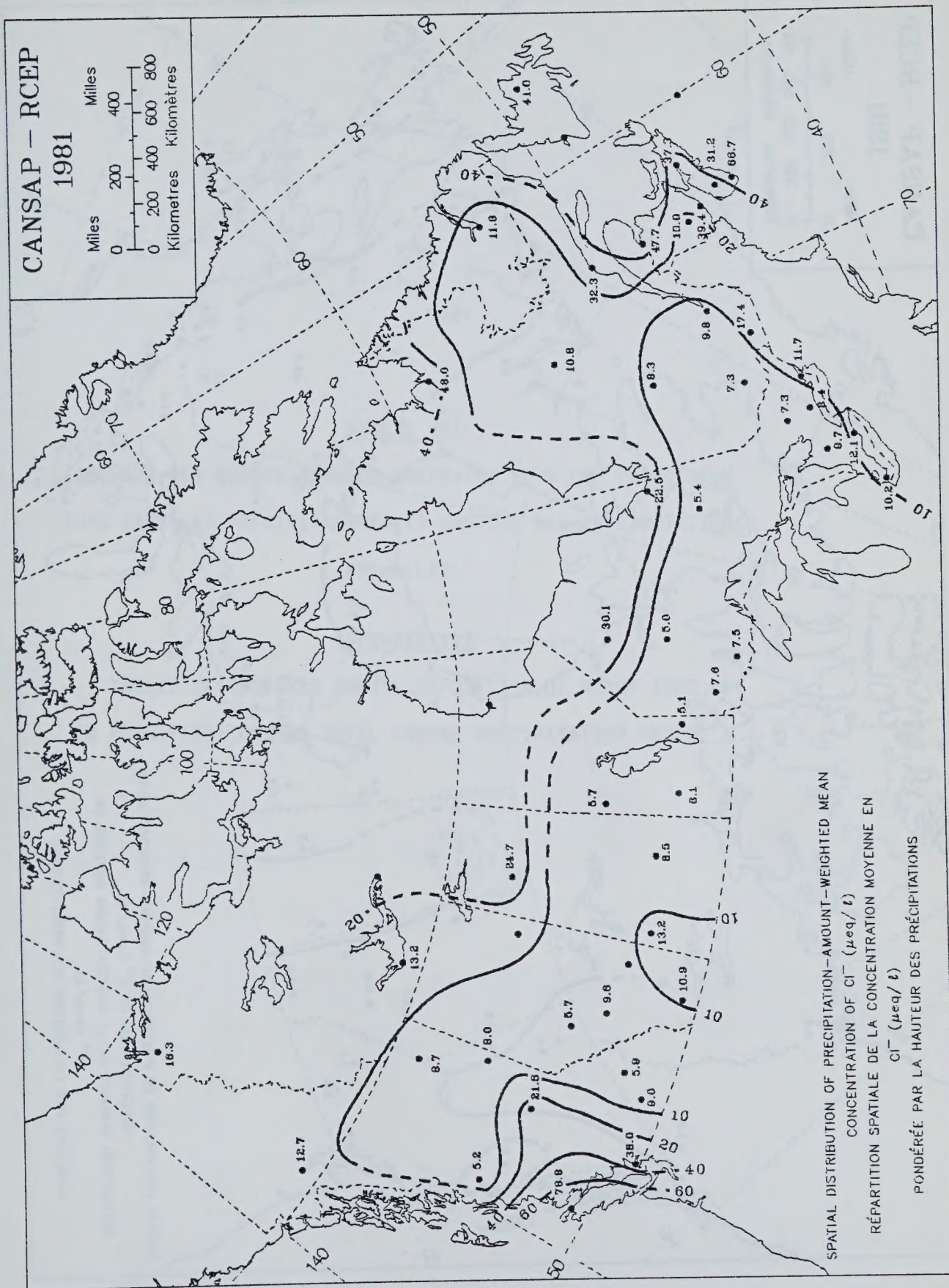


SPATIAL DISTRIBUTION OF PRECIPITATION-AMOUNT-WEIGHTED MEAN  
CONCENTRATION OF  $\text{Na}^+$  ( $\mu\text{eq}/\ell$ )

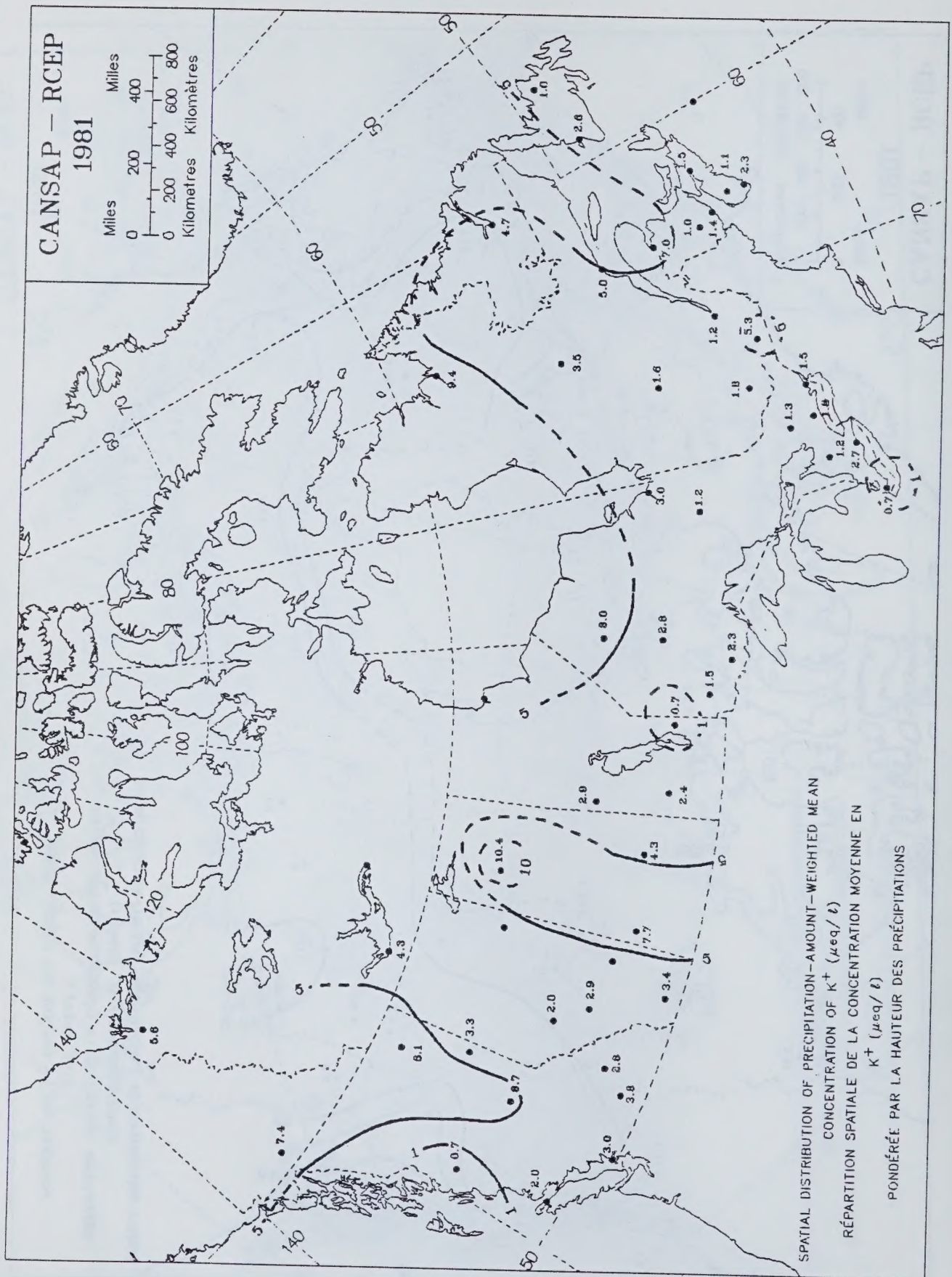
RÉPARTITION SPATIALE DE LA CONCENTRATION MOYENNE EN  
 $\text{Na}^+$  ( $\mu\text{eq}/\ell$ )

PONDÉRÉE PAR LA HAUTEUR DES PRÉCIPITATIONS









ANNEXE VII

TABLEAUX DES DÉPÔTS ANNUELS OBSERVÉS POUR LES PRINCIPAUX  
IONS DANS LES PRÉCIPITATIONS ET HAUTEUR DES PRÉCIPITATIONS  
ANNUELLES.

APPENDIX VII

TABLES OF OBSERVED ANNUAL DEPOSITION OF MAJOR IONS  
IN PRECIPITATION AND TOTAL ANNUAL PRECIPITATION AMOUNT.





## ANNUAL DEPOSITION / DÉPÔT ANNUEL

( MEQ / M<sup>2</sup> / A )

1981

| STATION         | PREC T<br>CM | H+       | NH4+     | CA++     | MG++     | NA+      |
|-----------------|--------------|----------|----------|----------|----------|----------|
| -----           | -----        | -----    | -----    | -----    | -----    | -----    |
| FORT RELIANCE   | 24.4         | 3.4      | DEL/ELIM | 1.9      | DEL/ELIM | 1.0      |
| HAY RIVER       | 31.1         | 0.1      | 10.81    | 22.5     | 4.8      | 4.4      |
| INUVIK          | 28.8         | 0.1      | 1.21     | 79.0     | 17.8     | 5.3      |
| MOULD BAY       | 11.3         | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM |
| WHITEHORSE      | 23.8         | 0.9      | 0.82     | 22.3     | 9.2      | 2.7      |
| FORT NELSON     | 37.6         | 0.5      | 6.38     | 7.4      | 1.6      | 4.0      |
| FORT ST JOHN    | 33.6         | 1.1      | 0.51     | 17.4     | 3.6      | 3.1      |
| KELOWNA         | 45.2         | 1.8      | 4.68     | 7.8      | 2.4      | 3.7      |
| PORT HARDY      | 191.5        | 16.0     | 6.67     | 13.7     | 28.9     | 129.8    |
| PRINCE GEORGE   | 47.0         | 1.0      | 5.96     | 23.5     | 6.3      | 13.3     |
| REVELSTOKE      | 96.2         | 4.2      | 5.31     | 14.1     | 2.7      | 6.9      |
| TERRACE         | 116.8        | 9.7      | 0.58     | 3.8      | DEL/ELIM | 5.9      |
| VANCOUVER       | 145.9        | 30.4     | 17.74    | 24.3     | 11.0     | 50.3     |
| CORONATION      | 31.4         | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM |
| EDSON           | 43.0         | 1.0      | 3.81     | 23.2     | 4.6      | 3.2      |
| LETHBRIDGE      | 42.7         | 0.2      | 9.92     | 57.1     | 14.4     | 5.3      |
| ROCKY MTN HOUSE | 52.7         | 1.1      | 12.11    | 28.8     | 6.5      | 5.5      |
| CREE LAKE       | 32.1         | 1.4      | 2.34     | 13.3     | 2.7      | 8.7      |
| KINDERSLEY      | 28.2         | 0.1      | 0.49     | 48.4     | 26.7     | 8.5      |
| WYNARD          | 54.1         | 0.3      | 2.76     | 59.5     | 24.0     | 5.5      |
| BISSETT         | 47.9         | 4.4      | 1.21     | 8.2      | 2.3      | 1.8      |
| CHURCHILL       | 39.4         | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM |
| DAUPHIN         | 45.1         | 0.3      | 5.61     | 34.5     | 15.6     | 2.4      |
| THE PAS         | 52.8         | 0.6      | 6.78     | 18.1     | 10.9     | 5.5      |
| ATIKOKAN        | 59.1         | 7.5      | 11.98    | 13.6     | 3.5      | 4.2      |
| DORSET          | 94.3         | 65.1     | 25.52    | 19.8     | 4.2      | 4.7      |
| ELA             | 68.3         | 7.9      | 11.58    | 7.0      | 1.8      | 2.8      |
| HARROW          | 100.5        | 74.8     | 24.15    | 39.9     | 19.0     | 5.2      |
| KAPUSKASING     | 88.0         | 11.2     | 15.05    | 36.6     | 7.2      | 4.4      |
| KINGSTON        | 99.9         | 90.7     | 19.44    | 34.3     | 6.6      | 8.6      |
| MOOSONEE        | 57.1         | 3.9      | 2.65     | 19.1     | 5.5      | 10.2     |
| MOUNT FOREST    | 91.9         | 44.1     | 38.50    | 34.7     | 18.3     | 9.4      |
| PETERBOROUGH    | 88.2         | 51.2     | 24.81    | 25.1     | 3.8      | 4.3      |
| PICKLE LAKE     | 51.5         | 3.2      | 3.00     | 16.9     | 5.1      | 3.9      |
| SIMCOE          | 88.4         | 77.6     | 22.75    | 23.3     | 6.0      | 9.2      |
| TROUT LAKE      | 61.2         | 0.3      | 8.86     | 34.5     | 8.2      | 19.0     |
| CHIBOUGAMAU     | 86.5         | 28.6     | 9.15     | 8.6      | 3.3      | 4.5      |
| FORT CHIMO      | DEL/ELIM     | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM |
| MANIWAKI        | 89.0         | 52.2     | 20.35    | 12.8     | 2.9      | 7.4      |
| NITCHEQUON      | 92.1         | 12.5     | 3.94     | 6.5      | DEL/ELIM | 12.3     |
| QUEBEC CITY     | 130.3        | 86.7     | 27.70    | 25.6     | 3.6      | 6.2      |
| ST HUBERT       | 113.4        | 37.2     | 58.49    | 57.9     | 9.2      | 17.6     |
| SEPT ISLES      | 132.9        | 37.6     | 5.59     | 9.0      | 7.4      | 37.9     |
| ACADIA FES      | 153.9        | 66.9     | 10.82    | 10.2     | 4.9      | 11.7     |
| CHARLO          | 122.2        | 26.6     | 12.75    | 22.6     | 12.4     | 60.8     |
| SAINT JOHN      | 190.8        | 43.3     | 15.99    | 37.9     | 31.8     | 56.3     |
| KEJIMIKUJIK     | 157.9        | 49.4     | 4.23     | 7.3      | 9.4      | 42.5     |
| SABLE ISLAND    | 156.9        | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM |
| SHELBURNE       | 153.2        | 48.5     | 7.08     | 8.7      | 20.9     | 98.2     |
| TRURO           | 131.5        | 48.7     | 12.47    | 14.1     | 9.3      | 46.3     |
| GANDER          | 134.8        | 19.1     | 12.33    | 5.9      | 7.4      | 37.2     |
| GOOSE           | 121.1        | 7.8      | 2.68     | 4.5      | DEL/ELIM | 17.6     |
| STEPHENVILLE    | 125.2        | 26.5     | DEL/ELIM | 16.8     | 24.2     | 121.6    |



## ANNUAL DEPOSITION / DÉPÔT ANNUEL

( MEQ / M<sup>2</sup> / A )

1981

| STATION         | K+       | SO4 =    | NO3-     | CL-      | SO4 = C  |
|-----------------|----------|----------|----------|----------|----------|
| -----           | -----    | -----    | -----    | -----    | -----    |
| FORT RELIANCE   | DEL/ELIM | 3.4      | DEL/ELIM | DEL/ELIM | 3.3      |
| HAY RIVER       | 1.3      | 9.7      | 2.4      | 4.1      | 9.1      |
| INUVIK          | 1.6      | 6.3      | 0.8      | 4.7      | 5.6      |
| MOULD BAY       | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM |
| WHITEHORSE      | 1.8      | 10.3     | 3.9      | 3.0      | 10.0     |
| FORT NELSON     | 2.3      | 5.3      | 2.5      | 3.3      | 5.1      |
| FORT ST JOHN    | 1.1      | 9.4      | 5.8      | 2.7      | 9.0      |
| KELOWNA         | 1.7      | 8.2      | 3.1      | 4.1      | 7.8      |
| FORT HARDY      | 3.8      | DEL/ELIM | 3.9      | 151.0    | DEL/ELIM |
| PRINCE GEORGE   | 4.1      | 15.5     | 3.0      | 10.2     | 13.9     |
| REVELSTOKE      | 2.7      | 12.8     | 7.8      | 5.6      | 12.0     |
| TERRACE         | 0.9      | DEL/ELIM | DEL/ELIM | 6.1      | DEL/ELIM |
| VANCOUVER       | 4.4      | 52.5     | 22.8     | 55.4     | 46.5     |
| CORONATION      | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM |
| EDSON           | 0.9      | 14.8     | 4.4      | 2.4      | 14.4     |
| LETHBRIDGE      | 1.5      | 21.3     | 9.4      | 4.6      | 20.7     |
| ROCKY MTN HOUSE | 1.5      | 24.5     | 4.4      | 5.0      | DEL/ELIM |
| CREE LAKE       | 3.3      | 8.6      | 4.4      | 7.9      | 7.5      |
| KINDERSLEY      | 2.2      | 14.8     | 8.6      | 3.7      | 13.8     |
| WYNYARD         | 2.4      | 18.0     | 8.3      | 4.6      | 17.3     |
| BISSETT         | 0.3      | 8.2      | 2.2      | 2.5      | 8.0      |
| CHURCHILL       | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM |
| DAUPHIN         | 1.1      | 12.1     | 9.7      | 2.8      | 11.8     |
| THE PAS         | 1.5      | 13.2     | 7.3      | 3.0      | 12.6     |
| ATIKOKAN        | 1.3      | 23.4     | 11.7     | 4.5      | 22.9     |
| DORSET          | 1.3      | 72.9     | 36.8     | 6.9      | 72.4     |
| ELA             | 1.1      | 13.1     | 9.5      | 5.2      | 12.8     |
| HARROW          | 0.7      | 102.7    | 44.3     | 10.2     | 102.0    |
| KAPUSKASING     | 1.1      | 42.3     | 13.0     | 4.7      | 41.8     |
| KINGSTON        | 1.5      | 83.8     | 63.3     | 11.7     | 82.8     |
| MOOSONEE        | 1.7      | 16.1     | 5.0      | 12.9     | 15.1     |
| MOUNT FOREST    | 1.1      | 81.5     | 38.9     | 8.9      | 80.3     |
| PETERBOROUGH    | 1.4      | 62.3     | 34.1     | 7.4      | 61.7     |
| PICKLE LAKE     | 1.4      | 16.3     | 6.2      | 2.6      | 15.8     |
| SIMCOE          | 2.4      | 78.2     | 44.1     | 10.7     | 77.1     |
| TROUT LAKE      | 4.9      | 20.0     | 7.1      | 18.4     | 17.8     |
| CHIBOUGAMAU     | 1.3      | 34.2     | 14.3     | 7.2      | 33.7     |
| FORT CHIMO      | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM |
| MANIWAKI        | 1.6      | 59.5     | 27.3     | 6.5      | 58.6     |
| NITCHEQUON      | 3.2      | 17.7     | 4.2      | 9.9      | 16.3     |
| QUEBEC CITY     | 1.6      | 96.8     | 34.8     | 12.8     | 96.0     |
| ST HUBERT       | 6.0      | 111.5    | 42.3     | 19.8     | 109.4    |
| SEPT ISLES      | 6.7      | 39.9     | 11.7     | 43.0     | 35.4     |
| ACADIA FES      | 1.6      | 57.6     | 19.5     | 15.4     | 56.3     |
| CHARLO          | 8.5      | 53.6     | 14.7     | 58.3     | 46.3     |
| SAINT JOHN      | 2.6      | 79.1     | 28.8     | 75.2     | 71.2     |
| KEJIMIKUJIK     | 1.7      | 43.9     | 15.9     | 49.2     | 38.9     |
| SABLE ISLAND    | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM | DEL/ELIM |
| SHELBURNE       | 3.6      | 46.6     | 18.1     | 102.3    | 34.8     |
| TRURO           | 2.0      | 58.4     | 16.6     | 49.1     | 52.9     |
| GANDER          | 1.3      | DEL/ELIM | 6.2      | 55.2     | DEL/ELIM |
| GOOSE           | 5.7      | 19.4     | 2.5      | 14.3     | 17.3     |
| STEPHENVILLE    | 3.3      | 44.9     | DEL/ELIM | 130.5    | 30.4     |

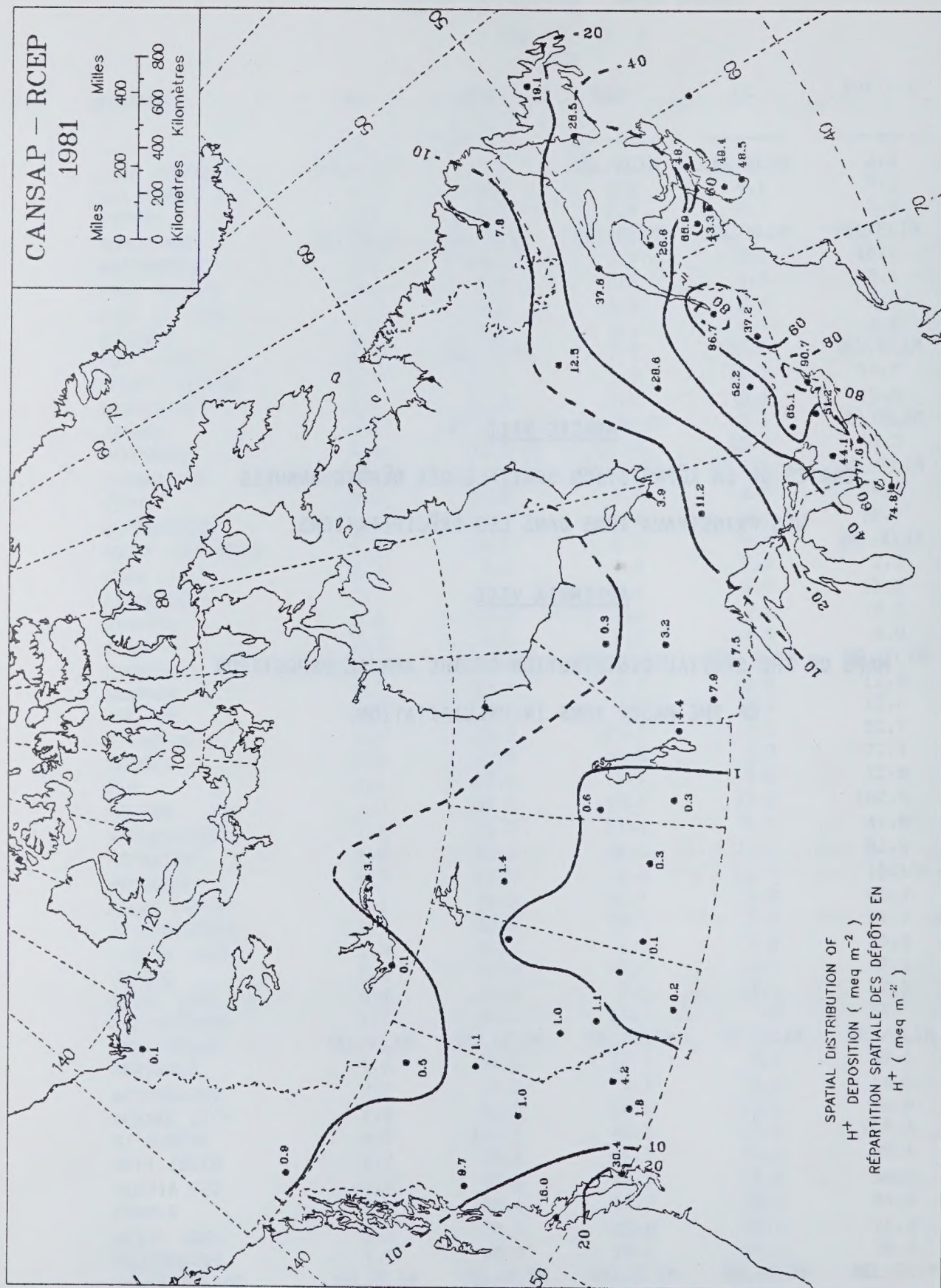
ANNEXE VIII

CARTES DE LA RÉPARTITION SPATIALE DES DÉPÔTS ANNUELS  
DES PRINCIPAUX IONS DANS LES PRÉCIPITATIONS.

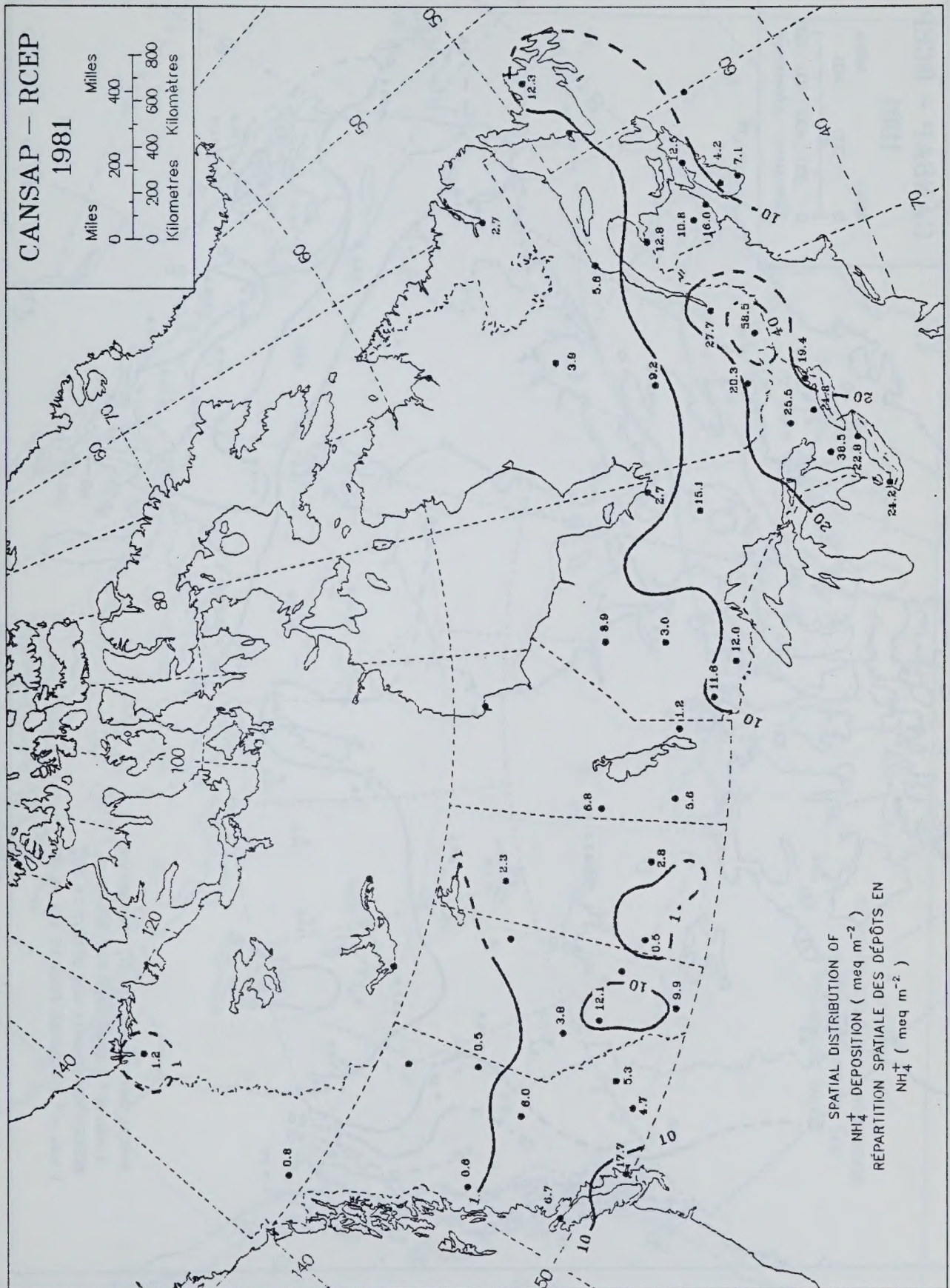
APPENDIX VIII

MAPS OF THE SPATIAL DISTRIBUTION OF THE ANNUAL DEPOSITION  
OF THE MAJOR IONS IN PRECIPITATION.

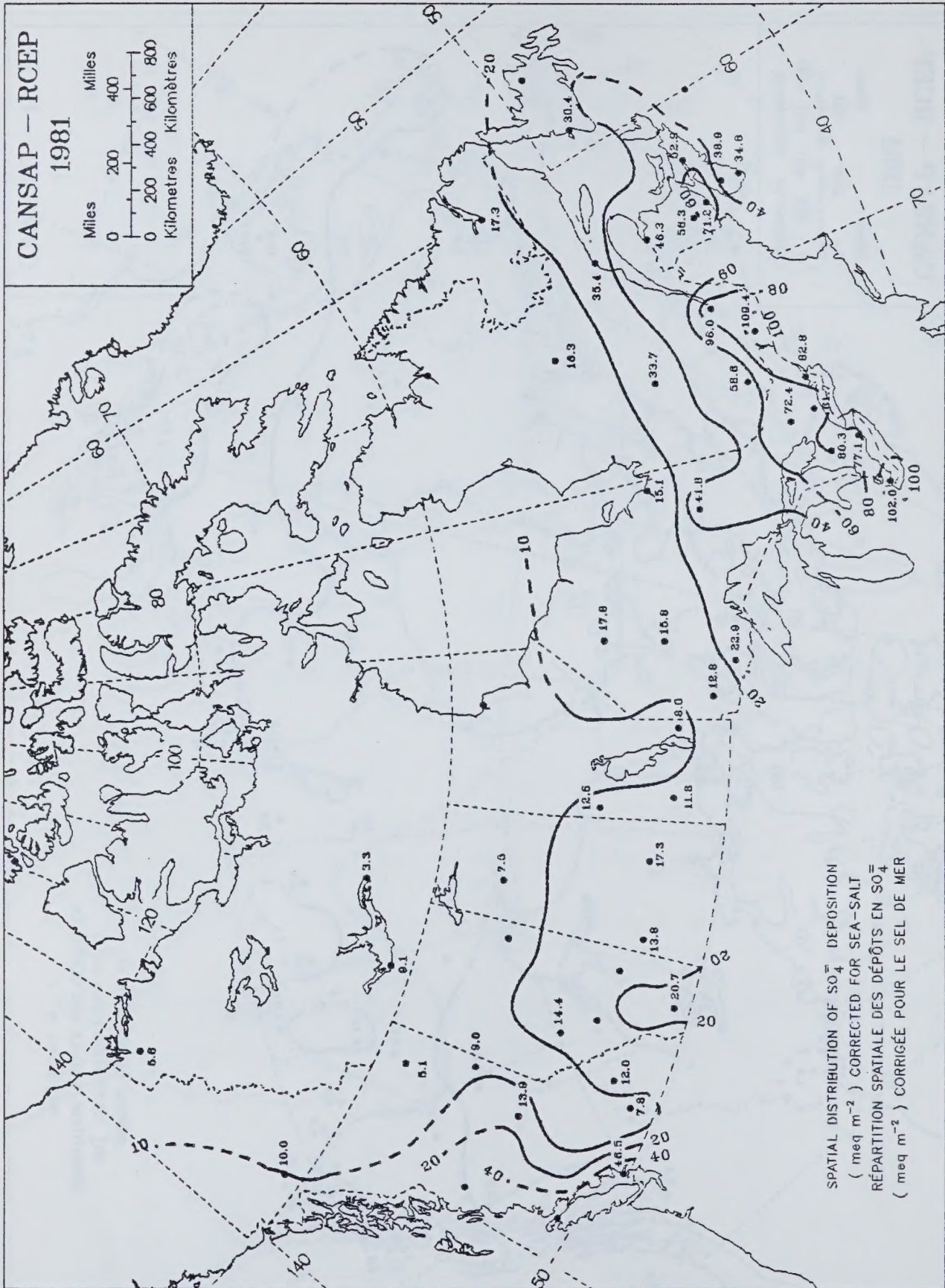




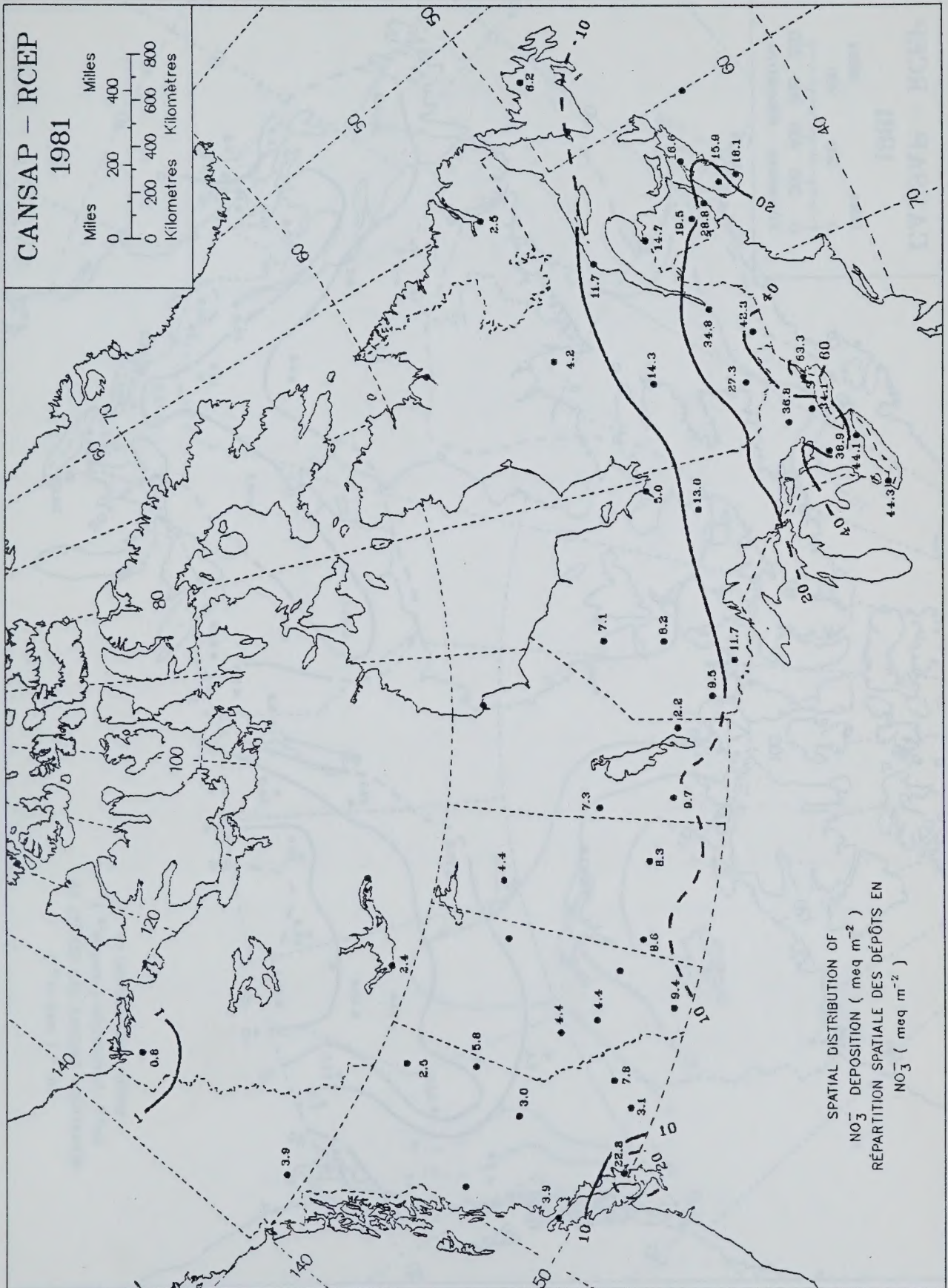




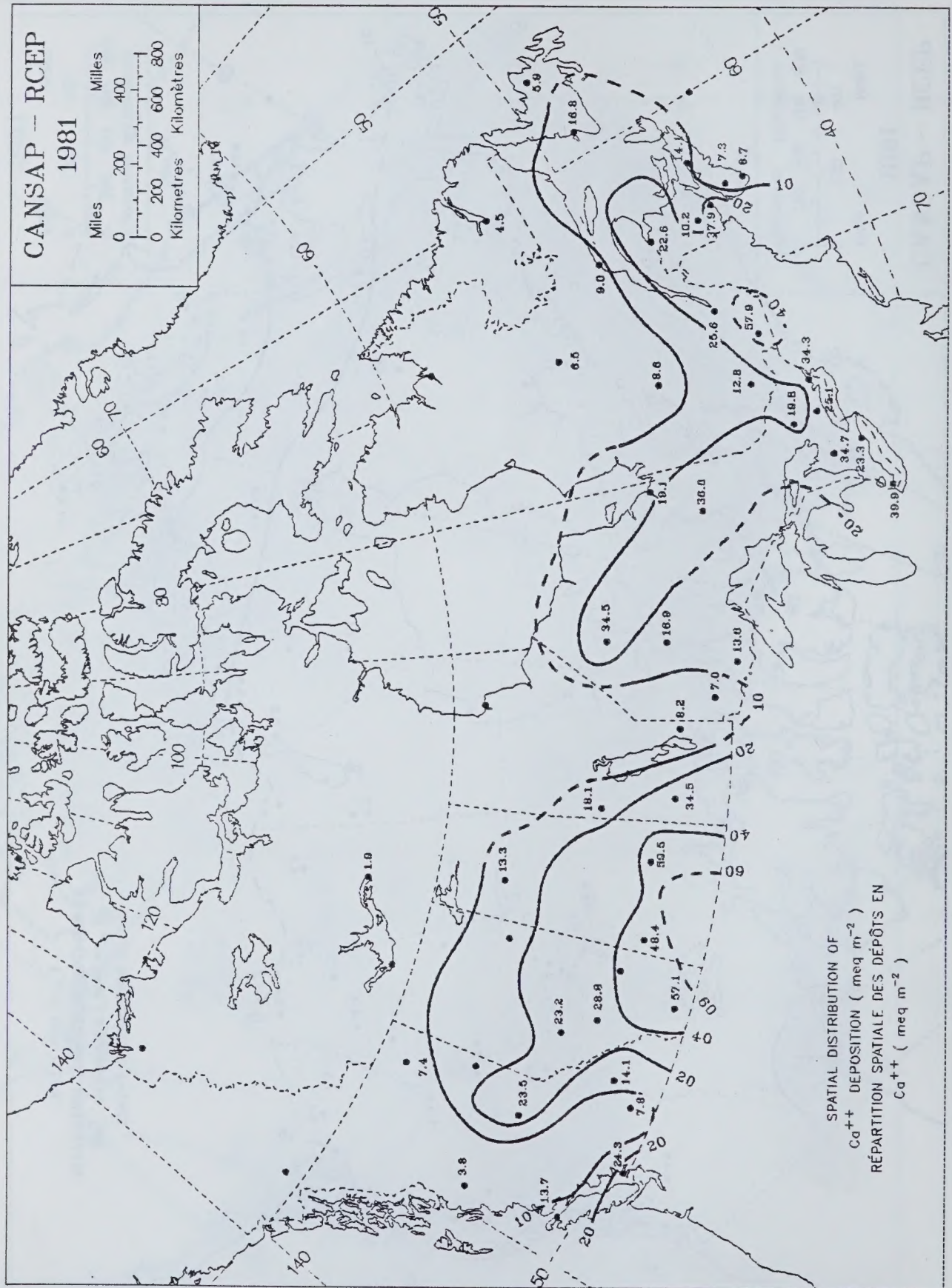




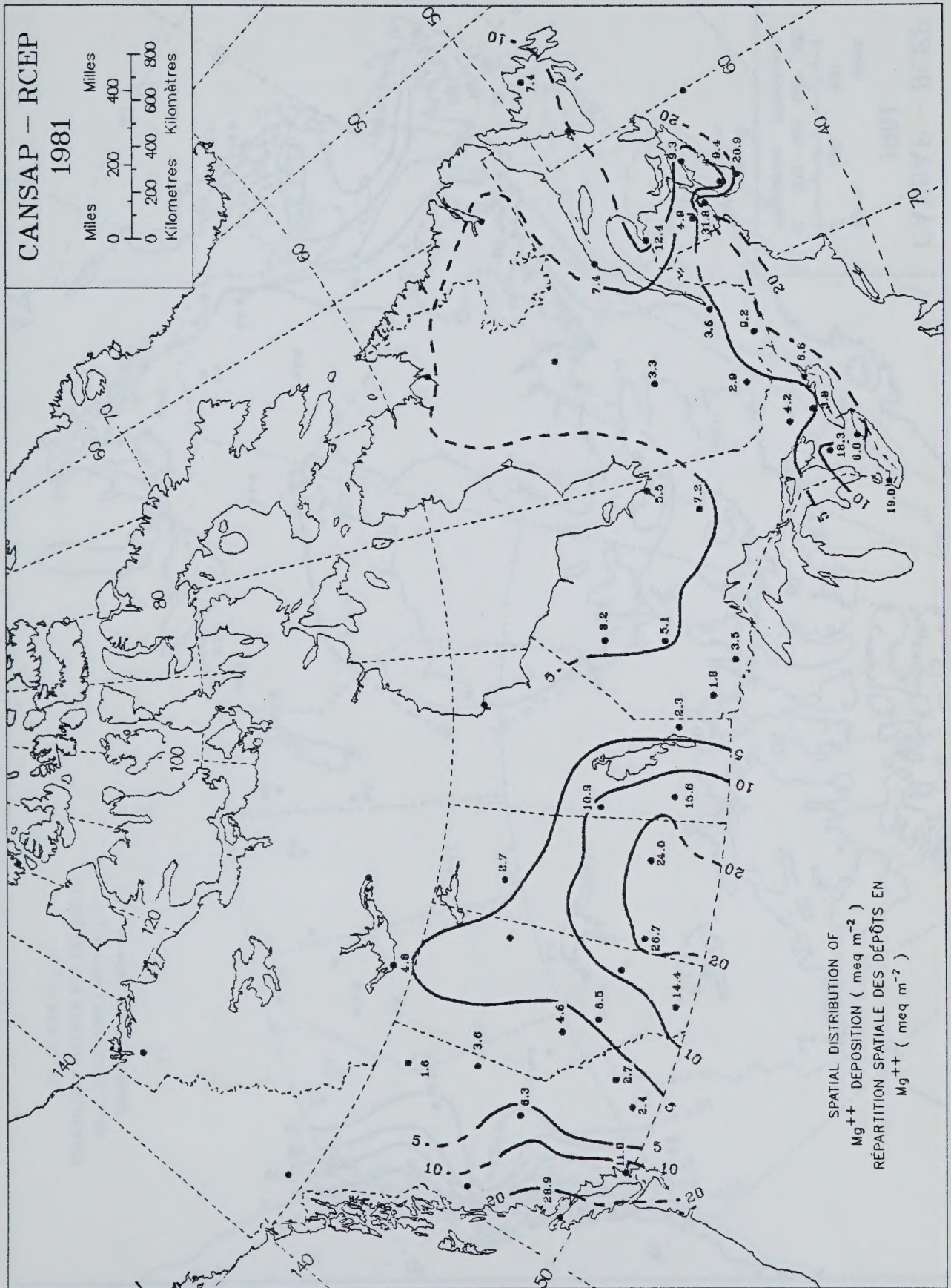




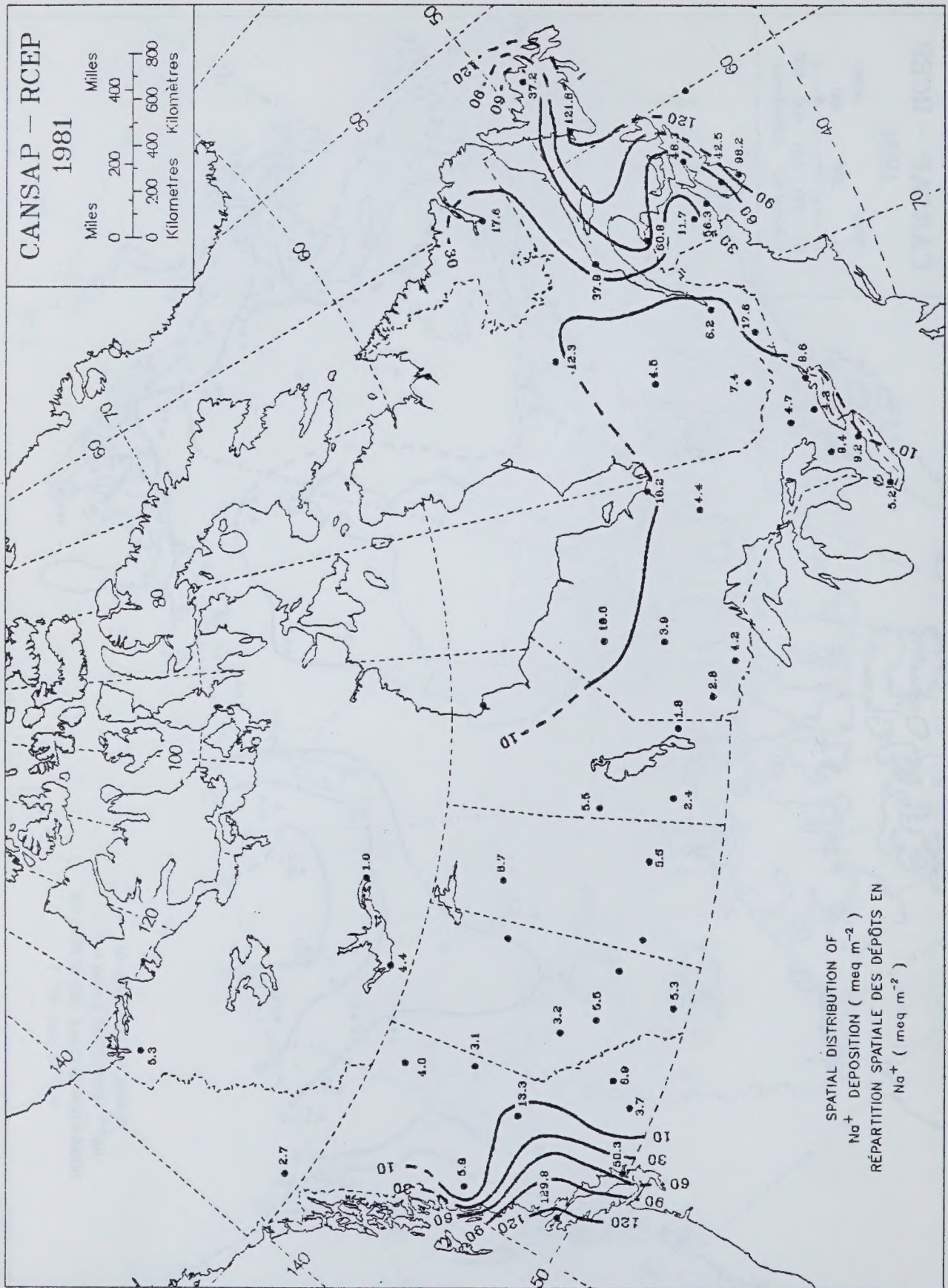




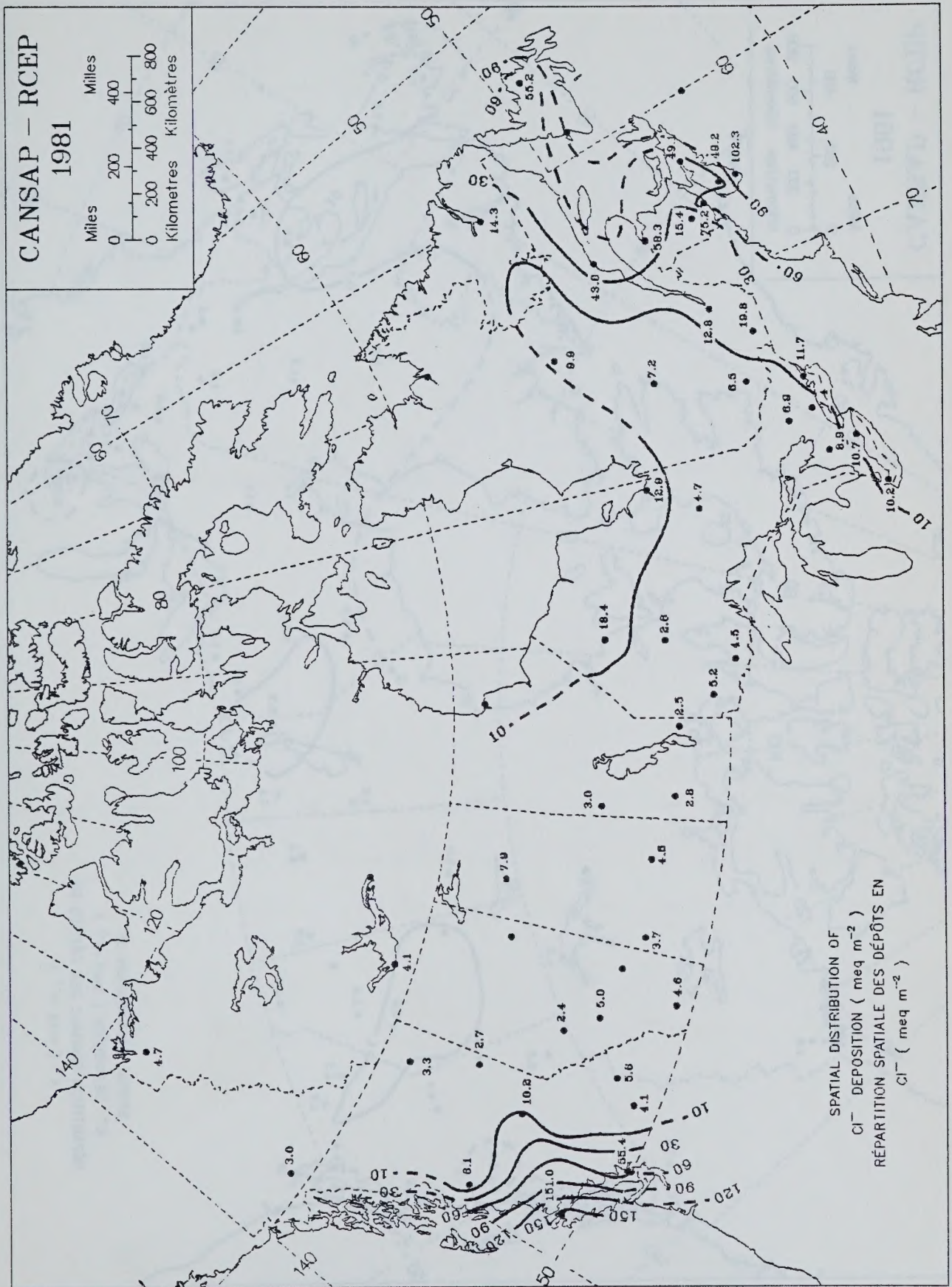




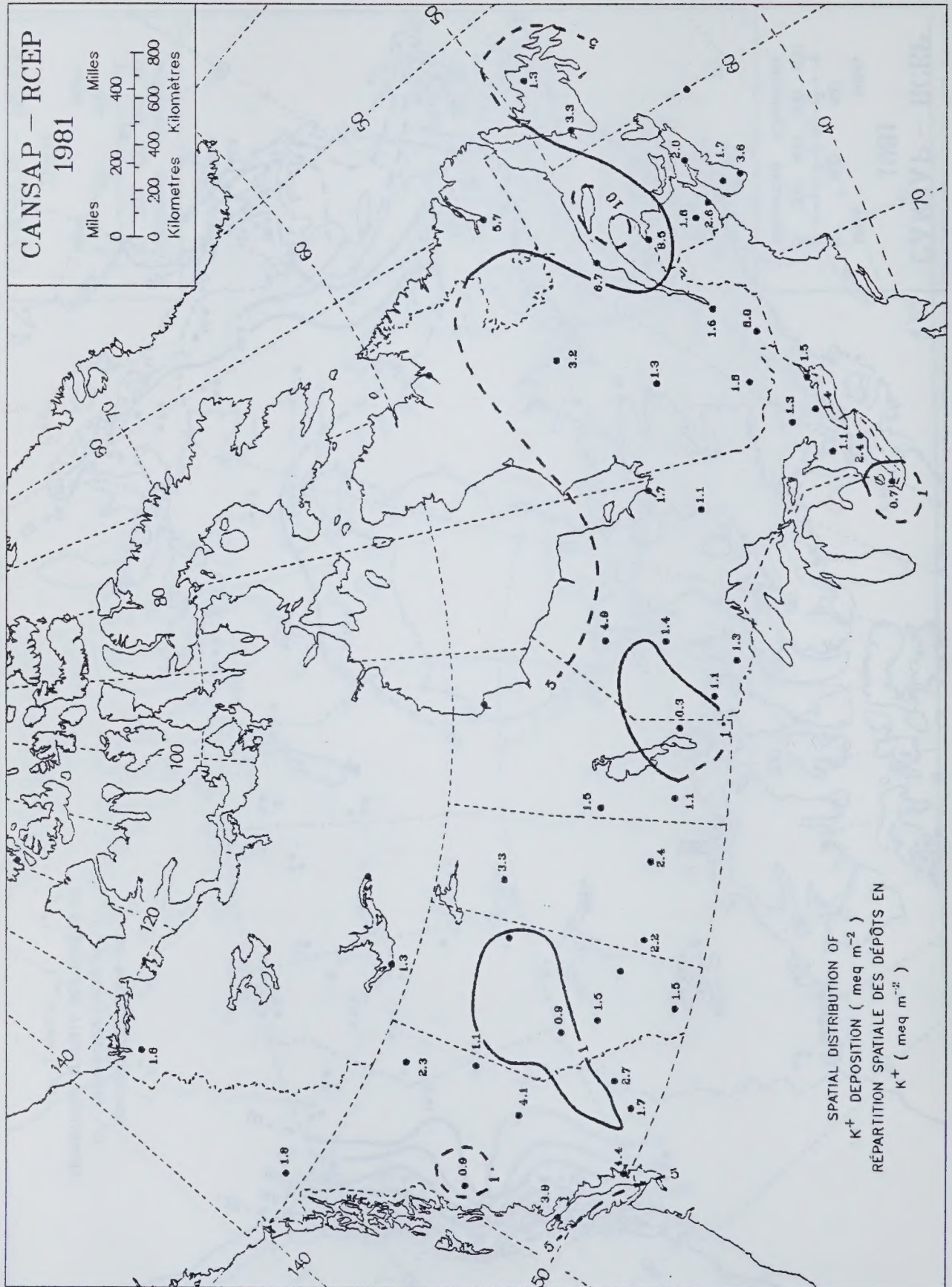
















*Three Dark Figures  
Making the Weather  
In Folk, in Myth, in Legend,  
A threefold test.  
Shiva, Vishnu, Brahmin.  
Father, Son, Holy Ghost.  
Body, Mind, Spirit.  
Triune, Triumvirate, Tribunal.  
One is Isolate  
Two is divisive  
Three is Peace.  
Three is Torment.  
Three is Potent.  
Power, Power, Power.  
Air, Fire, Water.  
Three Dark Figures,  
Making the Weather.*

Ron Baird, Sculptor